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Codes for Australian Aquatic Biota (CAAB): an upgraded and expanded species coding system for Australian fisheries databases

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ABSTRACT

Several biological coding systems have been used by Australian State, Territory and Federal fisheries agencies. Initially, agencies used either locally designed systems or a national three-digit system developed in the 1960s to code and store data on aquatic organisms. These were mostly replaced by FISHLIST, a six-digit system designed by CSIRO biologists in the late 1970s. This list of names and codes expanded well beyond the scope of its originally intended use, and finally became inadequate and unreliable. Invertebrates were included unsystematically, ad hoc additions were made to the list resulting in duplication of species and other errors, and only about one third of the Australian ichthyofauna was listed. These problems were compounded because voucher specimens were not assigned, and disputed entries, such as doubtful or incomplete scientific names, could not be checked.

FISHLIST was widely used within the Fishing Industry and the need to upgrade it became apparent. The Fisheries Research and Development Corporation (FRDC) funded a study to redesign the system, correct the list and improve access to the enhanced version. The upgraded system, 'Codes for Australian Aquatic Biota' (CAAB), now consists of eight-digit codes which allow for the systematic inclusion of all marine and freshwater biota. Old finfish (as opposed to shellfish) codes remain unchanged except for the addition of a two-digit prefix (37). The number of valid finfish species entries on the list has expanded from about 1400 to 4269. In addition, a number of commercial groupings of species and imported fishes have been coded. This report includes lists of: current ichthyofaunal entries, Australian commercial fin- and shellfish, and CAAB users. A brief summary of fisheries coding systems used elsewhere is also included.

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1 BIOLOGICAL CODING SYSTEMS

1.1 The Need for Coding Systems

Effective management and protection of the environment depend on the accurate collection, analysis and interpretation of biological data. Compiling and analysing such data has become easier with the advent of computers, but only if it is stored systematically. Biological researchers need some means of getting data into a database and retrieving information by species. This can be done several ways, such as by direct entry of names, by using a pull down menu of names, or by alphabetic or numeric codes.

Many different coding systems have been devised for fisheries purposes on an international basis (see Appendix A). Some countries have used codes provided by the United Nations Food and Agriculture Organisation or the United States National Oceanographic Data Center. However, these lists are seldom comprehensive for a particular region, which has forced many countries to design a system for their own needs.

1.2 Types of codes

There are many types of codes. Common (vernacular) and scientific names are codes of a type and could be used as database codes. However, common names vary between, and sometimes even within, countries and States, making them unsuitable as database codes. Scientific names or binomens (consisting of two Latinised words) are also unsuitable, as they are subject to change based on new information. For example, the binomen for the fish species marketed as snapper in Australia was recently changed from *Chrysophrys auratus* to *Pagrus auratus* (Paulin, 1990). Had the scientific name been used as a code, it would have changed, causing confusion in existing data sets and databases. In addition, scientific names are often long and unwieldy. The name of a local whiptail, *Idiolophorhynchus andriashevi*, is made up of 29 characters. Such names are time-consuming to enter, use a lot of computer memory space and can easily be misspelt (and may be misread by the database as separate species). While some of these problems are overcome with look-up tables on a computer, a binomen gives no indication of a particular species' relationship to species from other genera. Scientists often want to group closely related species (for example, by family), which cannot be achieved with common or scientific names.

In contrast to a code based on a complete name, an alphabetic, numeric or alphanumeric code assigned to a particular species will remain unchanged if the species' name changes. Such codes cut data-entry times, use less space in a computer, can be retrieved more quickly than scientific names, and can be sorted and manipulated in many ways. However, these codes can also be unpractical if the system attempts to include too much information. "A numbering system which permits all biological taxa to have unique systematic numbers, all ranks (levels) to be shown in fixed positions, and has enough empty room to permit future changes in the systematics, needs a large number of digits (40 or more)" (Pinborg and Paule, 1990).

1.3 Fisheries Coding Systems of Australia

Various Australian State, Territory and Federal research agencies have used coding systems extensively. Some systems, such as the Tasmanian Parks and Wildlife Services' TASCODE (10 digits, or 11 for subspecies), are intended to be all-encompassing, including codes for all Tasmanian animal and plant species. Others code only selected biota. For example, the Census of Australian Vertebrate Species, designed and maintained by the Australian Biological Resources Study, is an alphanumeric system (one letter followed by four digits) and covers all Australian vertebrates except fish.

Fish (and other marine organisms) have been coded elsewhere. In 1963, the Department of Primary Industry (DPI), in conjunction with the Australian Bureau of Statistics' published the "List of Australian Commercial Aquatic Fauna and Flora (Coded for Statistical Reference)", a national three-digit coding standard that was subsequently revised several times. The preface to the fourth edition (Anon., 1981) stated that, "The

Commonwealth and State Fisheries Authorities have agreed on uniform common names for Australian commercial fishes, crustaceans, molluscs, marine mammals, marine flora, and other marine organisms of commercial value. These species have been arranged in accordance with species groups adopted by the Food and Agriculture Organisation of the United Nations . . . On behalf of the Standing Committee on Fisheries, the Fisheries Division, Commonwealth Department of Primary Industry, has prepared a code for use in coding fishermen's returns for subsequent machine-processing of catch statistics. Each species has a 3-digit code number assigned to it." Although species were coded into sections defined as "Teleostean Freshwater Species," "Flatheads, Gurnards, and Similar Species" and "Molluscs", the codes were not constructed systematically. Consequently, they did not link related species and were of little use in sorting data.

To further complicate matters, four-digit codes were later added to the list. The "Explanatory Notes" section in a 1988 Department of Primary Industries and Energy publication, *Recommended Marketing Names for Fish* (Anon., 1988) stated that "entries coded 4000 and upwards are those not yet listed in the ['List of Australian Commercial Aquatic Fauna and Flora']. Entries coded 5000 and upwards are those species imported in commercial quantities, which are not locally occurring and are therefore not listed in the above publication."

Despite the limitations of this list, it remained in use by several Federal and State fisheries departments. For example, the Victorian Department of Conservation and Natural Resources (Fisheries Branch) and its predecessors have used these codes at least since the mid-1970s. The Fisheries Department of Western Australia used them from their inception in 1963 until 1989 and they introduced a local fourth digit to the coding system in 1975.

In spite of attempts to standardise on the national three-digit system, some fisheries organisations have used locally designed systems: CSIRO's Division of Fisheries and Oceanography developed a four-digit system in the 1970s for their Oceanic Fishery Resources Survey; the Northern Territory's Department of Primary Industry and Fisheries (Fisheries Research and Development) used a four-digit system from 1982 to 1988; New South Wales Fisheries had a five-digit system for a number of years until 1987; and Queensland's Department of Primary Industries (Land Use and Fisheries) used a three-digit system from 1988 to 1992. The South Australian Research and Development Institute (Aquatic Sciences) (SARDI) added codes to the national three-digit system in 1982 to suit their own needs, after using the DPI codes since 1976.

The Fisheries Department of Western Australia and Tasmania's Sea Fisheries Division have not used comprehensive, locally designed coding systems. However, some small-scale projects within various fisheries departments used systems designed for their very specific needs. For example, Tasmania's Sea Fisheries Division used three-letter codes for analysing data from research on jack mackerel.

While locally designed coding systems have filled an interim need, a national system is preferable long term. Many fish (and fisheries) cross State and Territory boundaries and a widely used national system would enable data to be transferred easily between State, Territory and Federal departments and Industry. It would also simplify the sorting of data, and reduce the considerable overlap of effort (in expertise, time and money). Australia has such a system.

FISHLIST, a six-digit coding system of Australian aquatic fauna with a bias to fish, is managed centrally (by the CSIRO Division of Marine Research) and is now used by a large and expanding number of governmental and industry groups for fishery purposes (Table 1, Appendix B). It has replaced almost all other national and locally designed systems. Originally devised in 1978 by CSIRO fisheries biologists (Drs Garrey Maxwell and Keith Sainsbury) during exploratory fishing surveys of the Great Australian Bight and North West Shelf, FISHLIST was expanded over more than a decade to include nearly 3000 scientific names of fish and shellfish from all areas of Australia's Exclusive Economic Zone (EEZ).

All State and Territory fisheries departments, except the SARDI, now use FISHLIST and the system is rapidly assuming the role of a regional standard. Tasmania first began using FISHLIST in 1979. Several other current

users agreed to use the system in the same year but have only recently incorporated it into their databases. The Australian Fishing Zone Information System (AFZIS) database, which stores data on Australian Fisheries Management Authority (AFMA) operations, licensing and logbook data from Commonwealth-managed fisheries, was also constructed around this coding system in 1979. FISHLIST has been used Australia-wide in CSIRO Division of Marine Research field programs. It is from all these databases that the management strategies of many of our fisheries are based.

Table 1. Number of agencies using FISHLIST/CAAB since 1980. Numerous individual projects/programs/ divisions in the agencies use the coding system. Appendix B lists the agencies.

Year	State/Territory Government users	Commonwealth Government users	Industry/other users	Total users
1980	1	1	0	2
1985	2	3	0	5
1990	5	3	1	9
1995	9	6	2	17

FISHLIST codes have been used during data collection and analysis by more than 20 projects funded by grants of over $3m from the Fisheries Research and Development Corporation (FRDC) and its predecessors during the last fourteen years. They are included in a number of recent publications of importance to Australian fisheries: *Marketing Names for Fish and Seafood in Australia* (Anon., 1995), *Australian Fisheries Resources* (Kailola *et al.*, 1993), *Field Guide to South East Fishery Quota Species* (Kailola and Grice, 1994) and *Sharks and Rays of Australia* (Last and Stevens, 1994). FISHLIST codes were also provided in guides to the deepwater prawns and commercial trawl fishes of Western Australia produced recently for AFZ observers and fishers by the CSIRO Division of Marine Research.

The FISHLIST system is based on the allocation (by CSIRO Division of Marine Research fish taxonomists) of a unique six-digit code to each species. For finfish species, the first three digits designate the family placement and the last three digits represent its unique number within the family.

The family coding system (digits 1–3) follows an efficient ordination system used by several Australian museums. This system, based on a classification proposed by Greenwood *et al.* (1966), is now somewhat outdated but the taxonomic affinities of most groups are fairly similar.

The last three digits (4–6) have been assigned to species on an ad hoc basis and are not ordered systematically. At one time, digit four was reserved to code subfamily or sex, but it was rarely used for such purposes. Temporary codes were assigned when a species identity was not fully known; the fourth digit of the code was designated as a five or an eight. In the case of commercial groupings of species within a family, digit four was a nine.

2 UPGRADE OF FISHLIST

2.1 Reasons for Upgrade

FISHLIST was originally designed for use on a small scale by a single CSIRO user group. Due to its successful local application, however, the system became popular and more widely accepted. This forced FISHLIST to expand well beyond its original concept and design into a multiple-user system.

For over a decade, species were added on an ad hoc basis. Commercial and other shellfish taxa were assigned non-systematic codes. Although the list contained about 3000 entries, a third of the names used were outdated (had changed in taxonomic reviews since they were included) or had been duplicated. Some were inaccurate or based on misidentifications. Several species had as many as three separate codes, while other taxa, identified only to genera, could not be linked to known species. Although some of the problem codes or names had been highlighted as no longer current, they tended to clutter up the list and confuse users. Other species, including foreign imports and some commercially important Australian taxa, needed to be added.

Furthermore, an increase in deepwater exploratory fishing surveys and the expansion of marine research nationwide resulted in the collection of many uncoded species. Some were incorrectly, or not fully, identified, and were assigned temporary codes, which further complicated matters. FISHLIST required analysing, revising and correcting names and codes to produce an accurate and systematic list of all Australian fishes and commercial invertebrates.

In the past, codes (both temporary and regular) were usually added to FISHLIST without designating a voucher specimen. A voucher specimen, preserved and formally catalogued in a recognised fish collection, acts as a permanent reference to a particular species or code; it can also be re-examined to confirm another specimen's identity. Without a voucher specimen and adequate information to positively identify a species allocated to a particular code, many FISHLIST codes were rendered useless. Voucher specimens needed to be assigned to coded species.

The reliability of catch statistics depends on the quality of the data on which they are based. Data errors can result in the loss of important information possibly leading to incorrect management advice. Taxonomic errors in existing FISHLIST versions had the potential to corrupt data on Australian fishes. In recognition of FISHLIST's national importance, FRDC provided funding to upgrade and correct the list and revise the system.

2.2 Upgrade Process

A list of the Australian ichthyofauna was compiled from the literature, an examination of museum specimens, and through liaison with numerous fish taxonomists. The first part of a catalogue of Australian fishes (Paxton *et al.* 1989) formed the basis for about half the fauna. FISHLIST was then corrected and expanded to include all known Australian fishes by their currently accepted binomen. The assigning of voucher specimens to all entries is in process and initially focuses on commercial species.

To allow for the systematic inclusion of invertebrates, the system was upgraded from six to eight digits, the two-digit prefix categorising organisms into their major group (for example, finfish, crustacean, red alga or mammal; see Table 2). The system's name was changed to 'Codes for Australian Aquatic Biota' (CAAB) to encompass its expanded scope. Further work by major group specialists is required to assign the Australian representatives within each category. Although CAAB includes only aquatic organisms, a similar list of terrestrial biota could be constructed if desired.

Valid six-digit finfish codes that had previously been assigned systematically remain completely unchanged (as do family codes), except for the addition of the two-digit prefix for finfish: "37". During the changeover from six to eight digits (which began in July 1993), all current six-digit codes will be prefixed with "00". Users can continue to use the existing six-digit codes for fish but need to upgrade their data storage and analysis systems if they wish to include new invertebrate data. Apart from finfish and commercially important shellfish, the "00" section of the old FISHLIST will not be updated.

A computer system has been developed for systematic storage of CAAB data, as well as data entry and retrieval (see Appendix C). The Oracle relational database is used for storage, and its tools, such as SQL*Forms, for user interaction.

The design of the system had to meet certain criteria. For example, one of the most difficult, and perhaps most

critical, is that no information would be overwritten. If information must be changed, it is stored as a new record and the historical information is kept. Previously-used synonyms need to be kept for future reference, to ensure that they are not identified as new species. The concepts of "current" (for example, for the currently correct synonym) and "legal" (for example, for synonyms that have been correctly used in the past but are not current) are used. This allows us also to identify synonyms that have been incorrectly, but widely, used. These concepts of "legal" and "current" are used in many places, not just for synonyms.

Table 2. Two-digit CAAB major category codes. Primary sources were Parker (1982), Clayton and King (1990) and Brusca and Brusca (1990).

Code	Category (Groups)	Common Name
10	Prokaryotae (Virus, Monera (including Cyanophyta))	Viruses, bacteria, blue/green algae
11	Rhodophyta	Red algae
12	Chromophyta and Euglenophyta	Brown and yellow/green algae
13	Chlorophyta	Green algae, stoneworts
14	Fungi (includes Myxomycota, Eumycota, Basidiomycotina and lichens)	Fungi, slime moulds and lichens
15	Bryophyta, Psilophyta, Lycopodiophyta, Equisetophyta, Filicophyta	Liverworts, ferns
16	Vascular Plants (Pinophyta and Magnoliophyta)	Gymnosperms, angiosperms
17	Protozoa	Protozoans
18	Porifera	Sponges
19	Cnidaria	Jellyfishes, corals, anemones, hydras, etc.
20	Ctenophora	Comb jellies
21	Placozoa and Mesozoa	—
22	Platyhelminthes	Flat worms
23	Nemertea	Ribbon worms
24	Aschelminthes (Nematoda, Nematomorpha, Rotifera, Gastrotricha, Kinorhyncha), Priapula, Gnathostomulidae, Loricifera, Acanthocephala, Entoprocta	Nematodes, nematomorphs, rotifers, gastrotrichs, kinorhynchs, priapulans, gnathostomulids, loriciferans, acantho-cephalans, entroprocts
25	Annelida	Segmented worms
26	Echiurida, Sipunculida, Pogonophora, Vestimentifera	Coelomate worms
27	Malacostracan Crustacea	Crustaceans
28	non-Malacostracan Crustacea	Crustaceans
29	Insecta	Insects
30	Other Arthropoda (Cheliceriformes, Uniramia [excluding insects: Oncyphora and Myriapoda], and Tardigrada)	Scorpions, spiders, sea-spiders, tardigrades
31	Gastropod Mollusca	Snails and slugs
32	non-Gastropod Mollusca	Molluscs
33	Ectoprocta (or Bryozoa), Phoronida and Brachiopoda	Ectoprocts, phoronids, lamp shells
34	Echinodermata	Echinoderms
35	Chaetognatha and Hemichordata	Arrow and acorn worms
36	Cephalochordata and Urochordata	Lancelets, tunicates
37	Pisces	Fishes
38	Amphibia	Amphibians
39	Reptilia	Reptiles
40	Aves	Birds
41	Mammalia	Mammals
99	Unidentified	—

All changes in the new CAAB list are flagged by date, person and reason, creating a vital audit trail in case of further inquiry.

As part of the design process, it has been necessary to encode the conventions used by the taxonomic community. To an outsider, some of these seem unusual and, while they have all been included in the final design, it has involved some fairly strenuous negotiations between taxonomists and system analysts.

3 CODES FOR AUSTRALIAN AQUATIC BIOTA (CAAB)

3.1 CAAB Format

CAAB is an eight-digit system for coding Australian aquatic biota. Each code relates to a species, and each species is represented by a voucher specimen. Each entry consists of the eight-digit code, the species' name, author and date, the voucher specimen number, a common name and comments (e.g. alternative common names, identification reliability, archival information).

The makeup of the eight-digit codes is "ccfffsss", where "cc" stands for the two-digit category code (Table 2) and, in the case of finfish, "fff" for the three-digit family code and "sss" for the three-digit species number (see Table 3). The allocation of three digits each to family and species may vary; for example, in some categories it may be more appropriate to allocate two digits to order and one to family or to allow two digits for species and one for subspecies or variety. This is possible as long as the code consists of two digits for the category and two sets of three digits for the remainder. The second set of three digits must be hierarchically dependent on the first set. Numbering of the two-digit category codes begins at "10" to remove problems of leading zeros on computers. The eight-digit codes will be written with a space between the two-digit prefix and the remaining six digits.

CAAB codes can be assigned to groups of commercial species (e.g. the two main species of warehou (*Seriolella*) can be given a single code if required), to imported species and to species that cannot be accurately identified. The coding system also allows users to construct temporary codes for their own purposes without corrupting the central database (see Table 3).

A synonymy of old codes and a history of code changes will be maintained as part of the CAAB system (although not included in routine distributions). Such information can be accessed if necessary.

3.2 Use of CAAB

CAAB (see Appendix D for ichthyofaunal section and Appendix E for commercial finfish and shellfish) will be maintained by the Taxonomy section of the CSIRO Division of Marine Research. However, although managed from a central point to avoid confusion or duplication, the non-finfish categories will be upgraded elsewhere.

For the list to be useful, access must be as wide and easy as possible. It is intended, subject to network security constraints, to allow read-only access to the CAAB database through the worldwide web.

Copies of the list of current, valid codes will be available in hard copy form and also as ASCII files for transfer by FTP and on IBM-compatible and Macintosh diskettes. Queries can be directed to:

CAAB Database Custodian
Fish Taxonomy
CSIRO Division of Marine Research
GPO Box 1538
Hobart
Tasmania, 7001, Australia

phone: 03) 6232 5222
international: 61 3 6232 5222

fax: 03) 6232 5000
international: 61 3 6232 5000
email: gordon.yearsley@marine.csiro.au

Table 3. The structure of the 8-digit CAAB codes (ccfffsss) for finfish. Also see Appendix C.

Code/digits	Meaning
Category code (First 2 digits: cc)	• These two digits define broad groups or categories of organisms (Table 2). A temporary code of "00" is in use during the changeover period from six to eight digits.
Family code (Digits 3–5: fff)	• These three digits represent families. The family codes used for finfish (category 37) are based on a system adopted by Australian museums. Family codes for other groups will be assigned later. • Family codes 980–989 are reserved for groupings of species that span families but are to be used for locally-defined groups on a temporary basis (similar to species numbers 800–899 below). • Family codes 990–999 are reserved for groupings of species (usually commercial) that span families (e.g. "shark").
Species code (Digits 6–8: sss)	• These three digits represent Australian species within each family up to species number 749 (ccfff749). • Numbers 750–799 in each family are reserved for imported commercial species that are not found in the EEZ (here defined as within 200 miles of the Australian mainland and Tasmanian coasts, including Lord Howe Island and inland waters) and species imported live for the aquarium trade. • Numbers 800–899 within each family are to be used locally as temporary codes for species that have not been rigorously identified. These may be new species or may, after investigation, turn out to be species that are already on the list. The local temporary code becomes obsolete when the organism is identified and a permanent code in the range 001–749 found or assigned. The temporary codes are for personal-only use and will not be added to the central database. However, for the benefit of future users of various data sets, workers should both ensure correct identifications and replace the temporary code with a permanent code as soon as possible. • Numbers 900–999 within each family are reserved for identifiable and nameable commercial groupings within the family (e.g. warehou—*Seriolella brama* and *S. punctata*).

Users are responsible for identifying their specimens for information to be recorded in their own databases. This can be done by using recognised literature and keys to find the accepted scientific name for the species, or by comparing their specimens with voucher or other representative specimens. From their identification they can use the coding system to find the appropriate code. If their species is uncoded, it may be a synonym of a coded species. This can be checked by searching through the complete CAAB file and by obtaining help from taxonomists. However, if the species is valid but not on the list, the user will request the CAAB custodian at CSIRO's Division of Marine Research to add it. (This can only be done for finfish at present). A voucher specimen must accompany the request.

The finfish section of CAAB will continue to be updated as new information comes to hand. This will ensure that fisheries researchers and industry personnel have access to an up-to-date coded list of Australian fishes. The

finfish voucher specimen and common name sections are currently incomplete and no attempt has been made to standardise common names.

The non-finfish section of CAAB includes all the commercially important Australian species and many others of interest to various researchers. These codes are still available for use but with the addition of the interim two-digit category code: "00". Each species will be assigned a new eight-digit code (including the relevant two-digit category code) when appropriate systems are designed. Except for commercially important species, new non-finfish codes will not be assigned until they can be done so systematically. While this will cause inconvenience to some researchers, the long-term advantage is that all taxa on CAAB will ultimately be entered systematically.

3.3 Voucher Specimens

A recent FRDC-funded study into the seafood consumption patterns of Australians revealed that the single most important factor to consumers buying fish is that the fish is correctly labelled (Kitson, 1992). However, consumers are not always confident that this is happening. At present, there is no established procedure for the validation of fish marketing names in Australia, although there have already been several law suits both here and overseas involving the use and misuse of these names. Assigning recommended common names and CAAB codes to voucher specimens (in Australia) has obvious benefits if marketing names are legislated. Voucher specimens, if designated to represent each CAAB code, can be produced or referred to in disputes over identification. Species codes will relate strictly to the species that the specimen represents rather than to a scientific name; the list will be maintained with this convention in mind. However, in most cases, the scientific name and voucher are likely to be synonymous.

CSIRO Division of Marine Research taxonomists are responsible for allocating finfish voucher specimens following the steps outlined in Figure 1. Specimens will be registered in CSIRO's I.S.R. Munro Ichthyological Collection in Hobart or at local museums. Responsibility for allocating non-finfish voucher specimens is yet to be determined and these specimens will be housed in other Australian biological collections.

In addition, colour transparencies of voucher specimens of commercial species are kept in the photographic index of the I.S.R. Munro Ichthyological Collection. As voucher specimens lose their colour during preservation, the photographs will provide a permanent record of the colour pattern of each species.

4 DISCUSSION

4.1 Discussion of CAAB

The systematic inclusion of non-finfish species was made possible by the addition of two-digit higher category prefixes. Ideally, experts in the taxonomy of these groups will design the coding frameworks (six-digit systems within each two-digit category code for the addition of non-finfish species) to be incorporated in the CAAB database. Full advantages of the eight-digit system will be gained when these systems are designed.

CAAB is comparable to fisheries coding systems used overseas. None is identical to CAAB but most are also numeric. In conjunction with the numeric codes, some countries (e.g. Iceland) use a three-letter identifier. These are usually mnemonic and therefore easier to remember in the field than a numeric code. The identifiers are linked to the numeric codes on databases. In Australia, AFMA includes three-letter mnemonic codes (e.g. SBT for southern bluefin tuna) on their logbooks. These assist fishermen and observers to record catch data at sea. Similar codes have been used in various fisheries departments in Australia over many years and can continue to be used with CAAB.

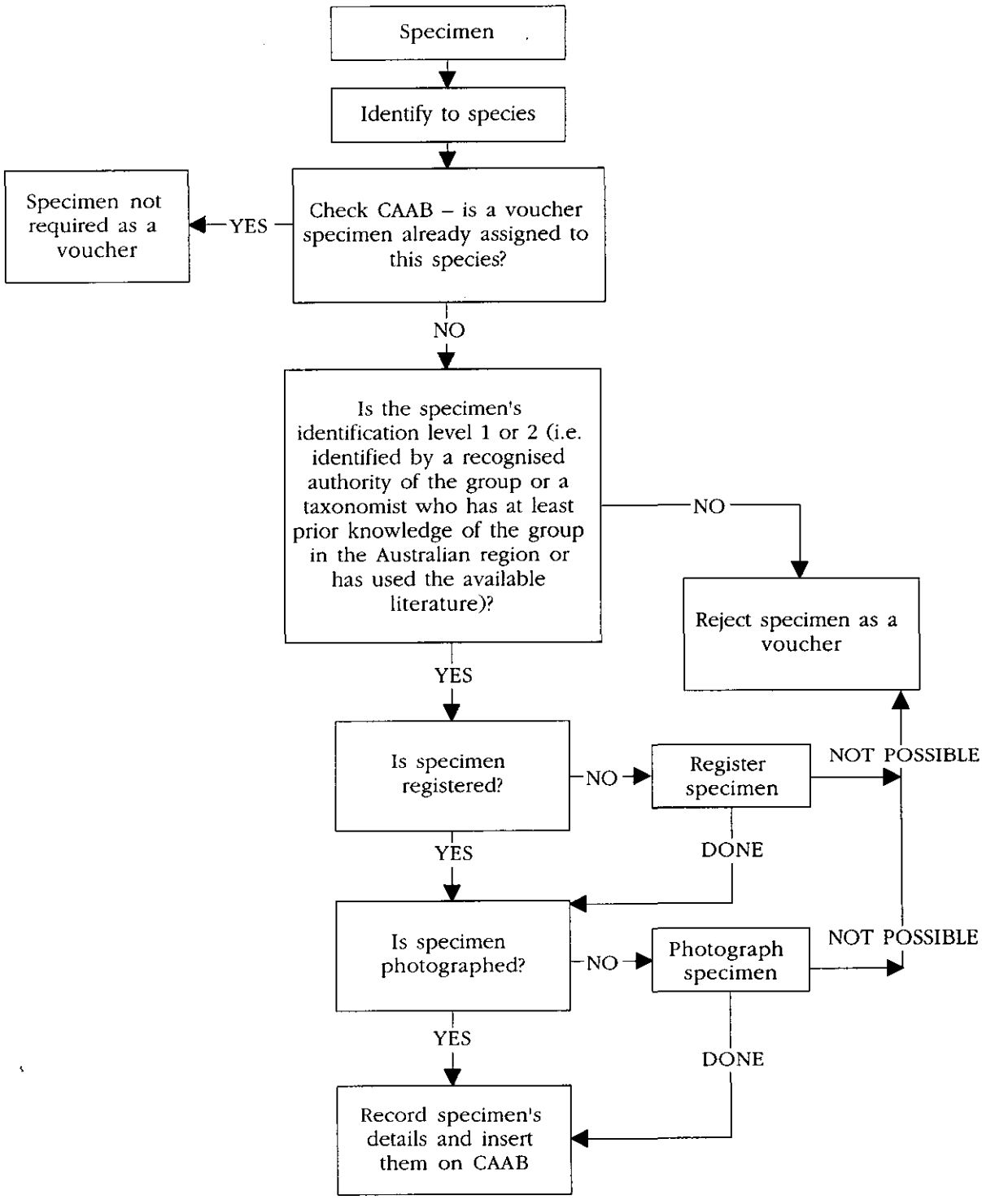

Figure 1. Flowchart showing the steps for assigning new voucher specimens

4.2 Discussion of Ichthyofaunal Section

Nelson (1994) stated that there are 24 618 valid species of fishes worldwide; about 17% of these (4269) are listed here from Australian waters. At least 200 fish species listed on CAAB are undescribed and many more are held in Australian museum collections, awaiting description by taxonomists. These will be added to CAAB when described or as requested. With these included, the Australian fish fauna totals nearly 4500. This agrees with Paxton *et al.*'s (1989) prediction that Australia's total fish fauna "will exceed 4000 species and approach 4500 species." Table 4 lists other characteristics of the Australian ichthyofauna.

Table 4. Composition of the Australian ichthyofauna as listed on CAAB.

Characteristic	Number	% of total
Total number of species	4269	
Number of shark and ray species	303	7.1
Total number of genera	1483	
Total number of families	324	
Number of monotypic families	74	22.8
Average number of species per genus	2.9	
Average number of species per family	13.2	
Average number of genera per family	4.6	
The five families with the most species:		
1. Gobiidae	319	7.4
2. Labridae	172	4.0
3. Serranidae	145	3.4
4. Pomacentridae	139	3.2
5. Apogonidae	126	3.0
The five families with the most genera:		
1. Gobiidae	84	5.6
2. Labridae	43	2.9
3. Syngnathidae	39	2.6
4. Scorpaenidae	38	2.6
5. Serranidae	31	2.1
The five genera with the most species:		
1. Apogon	66	1.5
2. Epinephelus	46	1.1
3. Gymnothorax	38	0.9
4. Chaetodon	34	0.8
5. Diaphus	31	0.7

A number of nomenclatural and taxonomic problems on the ichthyofaunal section of CAAB should be mentioned here. Solutions to these (and similar) problems will be included in CAAB upgrades when possible.

The identity of some macrourid specimens (family number 232), assigned as voucher specimens on FISHLIST a number of years ago, could not be confirmed. The vouchers are on loan overseas and have not yet been retrieved.

The family Muraenidae (060) contains problematic records of *Gymnothorax reticularis* and *G.* cf *angusticauda.* In such cases, where species were added to FISHLIST but their identification or presence in Australia is not confirmed, the entry has been retained on CAAB with a relevant comment.

The ichthyofaunal section of CAAB is not intended to be accurate phylogenetically. The family numbering system, adopted widely by Australian museums, was based on Greenwood *et al.* (1966) and is inconsistent with current knowledge. In addition, some fishes were not placed in the correct family in earlier versions of FISHLIST. For example, the pygmy perches were listed in the family Kuhliidae but are now considered part of the Percichthyidae. To maintain consistency for users who have these fishes coded in data sets, these errors have not been removed.

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Numerous people provided invaluable taxonomic assistance (Table 5).

Table 5. Contributing taxonomists, with their institution and area(s) of assistance.

Name	Institution	Area(s) of assistance
G. Allen	Western Australian Museum, Perth	pomacentrids, acanthurids, miscellaneous
D. Bellwood	James Cook University, Townsville	scarids
G. Bohlke	Academy of Natural Sciences, Philadelphia	muraenids
P. Castle	Victoria University of Wellington, Wellington	congrids
R. Daley	CSIRO Division of Marine Research, Hobart	miscellaneous
W. Eschmeyer	California Academy of Sciences, San Francisco	miscellaneous
R. Fricke	Staatliches Museum für Naturkunde, Stuttgart	callionymids, tripterygiids, psychrolutids, draconettids
M. Gomon	Museum of Victoria, Melbourne	trachichthyids, triglids, labrids, scarids, miscellaneous
P. Hamr	Inland Fisheries Commission, Hobart	galaxiids
D. Hoese	Australian Museum, Sydney	gobiids, clinids, soleids, tetraodontids, miscellaneous
B. Hutchins	Western Australian Museum, Perth	monocanthids, balistids, gobiesosocids, miscellaneous
W. Ivantsoff	Macquarie University, Sydney	atherinids
T. Iwamoto	California Academy of Sciences, San Francisco	macrourids
P. Kailola	Bureau of Resource Sciences, Canberra	ariids, miscellaneous
R. Kuiter	Aquatic Photographics, Melbourne	mullids, miscellaneous
J. McCosker	California Academy of Sciences, San Francisco	muraenids
R. McKay	Queensland Museum, Brisbane	sillaginids, haemulids
J. Nelson	University of Alberta, Edmonton	miscellaneous
J. Paxton	Australian Museum, Sydney	myctophids, miscellaneous
J. Randall	Bernice P. Bishop Museum, Honolulu	miscellaneous
B. Russell	Northern Territory Museum, Darwin	nemipterids, labrids
K. Sasaki	Kochi University, Kochi	sciaenids
J. Thomson	retired, Hobart	mugilids
A. Williams	CSIRO Division of Marine Research, Hobart	macrourids, miscellaneous

Special thanks to M. McGrouther and S. Reader (Autralian Museum, Sydney), who provided information on Australian Museum specimens and to Don McAllister (Canadian Museum of Nature, Ottawa) for information on his list of world fishes. Rainer Froese (International Center for Living Aquatic Resources Management, Manila) provided a spell check of names, authors and dates of Australian fishes against FISHBASE that proved useful in detecting errors within the literature.

The following people provided information on coding systems in Australia: M. Baron (Sea Fisheries Division, Tasmania), B. Bruce (CSIRO Division of Marine Research), J. Busby (Australian Biological Resources Study), P. Cassells (Australian Fisheries Management Authority), A. Caton (Australian Fisheries Management Authority), A. Coleman (Northern Territory Department of Primary Industry and Fisheries [Fisheries Research and Development]), K. Donohue (Fisheries Department of Western Australia), N. Dow (Victorian Department of Conservation and Natural Resources [Fisheries Branch]), A. Jordan (Sea Fisheries Division, Tasmania), J.

Just (Australian Biological Resources Study), P. Karouzos (Australian Fisheries Management Authority), J. Lyle (Sea Fisheries Division, Tasmania), G. Maxwell (formerly of CSIRO Division of Fisheries and Oceanography), I. McGuinness (Australian Bureau of Statistics), F. Meany (Australian Fisheries Management Authority), A. Menegazzo (Victorian Department of Conservation and Natural Resources [Fisheries Branch]), M. Moran (Fisheries Department of Western Australia), B. Pease (New South Wales Fisheries), G. Pullen (Sea Fisheries Division, Tasmania), D. Ramm (Northern Territory Department of Primary Industry and Fisheries [Fisheries Research and Development]), T. Skousen (Australian Fisheries Management Authority), D. Smith (Victorian Department of Conservation and Natural Resources [Fisheries Branch]), S. Smith (Tasmanian Parks and Wildlife Service), D. Staples (Bureau of Resource Sciences), N. Trainor (Department of Primary Industries, Queensland [Land Use and Fisheries]), A. Tsolos (The South Australian Research and Development Institute [Aquatic Sciences]).

G. Poore (Museum of Victoria), and H. Kirkman, S. Rainer and V. Wadley (CSIRO Division of Marine Research), provided comments on the two-digit category divisions.

The following CSIRO Division of Marine Research personnel provided specialised or miscellaneous assistance: C. Bulman; D. Brewer; P. Campbell (computing); T. Cracknell (word processing); A. Graham; O. MacNamara (computing); C. Proctor; S. Riddoch; M. Ryba ("beyond the call of duty" database design); J. Stevens. J. O'Regan, C. Stanley, V. Mawson, R. Daley and R. Thresher provided useful comments on the manuscript. Thanks also to the Hobart site library staff: D. Abbott, G. Forbes, J. Virag and T. Venettacci. D. Yearsley helped with proofreading.

Finally, thanks to numerous workers throughout the world for their reprints.

6 REFERENCES

Allen, G. R. and Swainston, R. (1988). The Marine Fishes of North-Western Australia. A Field Guide for Anglers and Divers. Western Australian Museum, Perth.

Anon. (1981). List of Australian Commercial Aquatic Fauna and Flora (Coded for Statistical Reference). Fisheries Division, Department of Primary Industry. Special Fisheries Publication No. 2.

Anon. (1988). Recommended Marketing Names for Fish. A Practical Guide for Fish Marketing. Department of Primary Industries and Energy. Australian Government Publishing Service, Canberra.

Anon. (1995). Marketing Names for Fish and Seafood in Australia. Commonwealth of Australia, Canberra.

Brusca, R. C. and Brusca, G. J. (1990). Invertebrates. Sinauer Associates Inc., Sunderland, Mass., USA.

Carpenter, K. E. and Allen, G. R. (1989). FAO species catalogue. Vol. 9. Emperor Fishes and Large-eye Breams of the World (Family Lethrinidae). An Annotated and Illustrated Catalogue of Lethrinid Species known to Date. FAO Fish. Synop. (125) Vol. 9.

Clayton, M. N. and King, R. J. (1990). Biology of Marine Plants. Longman Cheshire Pty. Ltd., Melbourne.

Gomon, M. F., Glover, C. J. M., and Kuiter, R. H. (1994). The Fishes of Australia's South Coast. State Print, Adelaide.

Gloerfelt-Tarp, T. and Kailola, P. J. (1984). Trawled Fishes of Southern Indonesia and Northwestern Australia. Dir. Gen. Fish. (Indonesia), German Tech. Coop., Aust. Dev. Ass. Bur., Jakarta.

Greenwood, P. H., Rosen, D. E., Weitzman, S. H. and Myers, G. S. (1966). Phyletic studies of teleostean fishes, with a provisional classification of living forms. Bulletin of the American Museum of Natural History 131(4): 339–456, figs 1–9, pls 21–23, chrts 1–32.

Hutchins, B. and Swainston, R. (1986). Sea Fishes of Southern Australia. Complete Field Guide for Anglers and Divers. Swainston Publishing, Daglish.

Kailola, P. J. and Grice, A. (1994). Field Guide to Sout East Fishery Quota Species. Australian Fisheries Management Authority, Canberra.

Kailola, P. J., Williams, M. J., Stewart, P. C., Reichelt, R. E., Mc Nee, A. and Grieve, C. (eds) (1993). Australian Fisheries Resources. Bureau of Resource Sciences, Department of Primary Industries and Energy, and the Fisheries Research and Development Corporation, Canberra.

Kitson, P. (1992). FIRDC seafood study to drive national marketing strategy. Australian Fisheries 51(3): 12–14.

Last, P. R., Scott, E. O. G. and Talbot, F. H. (1983). Fishes of Tasmania. Tasmanian Fisheries Development Authority, Hobart.

Last, P. R. and Stevens, J. D. (1994). Sharks and Rays of Australia. CSIRO Publications, Melbourne.

Neira, F. J. and Gaughan, D. J. (1989). Larval Development of *Lesueurina* sp. (Teleostei: Leptoscopidae) with notes on the occurrence of the larvae in a south-western Australian estuary. Rec. West. Aust. Mus. 14(3): 375–383.

Nelson, J. S. (1994). Fishes of the World. 3rd ed. John Wiley and Sons Inc., New York.

Parker, S. P. (chief ed.) (1982). Synopsis and Classification of Living Organisms. McGraw-Hill, New York.

Paulin, C. D., (1990). *Pagrus auratus*, a new combination for the species known as "snapper" in Australasian waters (Pisces: Sparidae). New Zealand Journal of Marine and Freshwater Research, 24: 259–265.

Paxton, J. R., Hoese, D. F., Allen, G. R. and Hanley, J. E. (1989). Zoological Catalogue of Australia, vol. 7 (Pisces; Petromyzontidae to Carangidae). Australian Government Publishing Service, Canberra.

Pinborg, U. and Paule, T. (1990). NCC Coding System: A Presentation. The Nordic Code Centre, Stockholm.

Randall, J. E., Allen, G. R. and Steene, R. C. (1990). Fishes of the Great Barrier Reef and Coral Sea. Crawford House Press, Bathurst.

Russell, B. C. (1990). FAO species catalogue. Vol. 12. Nemipterid fishes of the World. (Threadfin breams, Whiptail breams, Monocle breams, Dwarf monocle breams, and Coral breams). Family Nemipteridae. An Annotated and Illustrated Catalogue of Nemipterid Species known to Date. FAO Fish. Synop. (125)Vol. 12.

Sainsbury, K. J., Kailola, P. J. and Leyland, G. G. (1985). Continental Shelf Fishes of Northern and North-Western Australia. Commonwealth of Australia, Canberra.

Whitehead, P. J. P., Nelson, G. J. and Wongratana, T. (1988). FAO species catalogue. Vol. 7. Clupeoid Fishes of the World (Suborder Clupeoidei). An Annotated and Illustrated Catalogue of the Herrings, Sardines, Pilchards, Sprats, Shads, Anchovies and Wolf-herrings. Part 2. Engraulididae. FAO Fish. Synop. (125)Vol. 7, Pt. 2.

Winterbottom, R. and Burridge, M. (1992). Revision of *Egglestonichthys* and of *Priolepis* species possessing a transverse pattern of cheek papillae (Teleostei: Gobiidae), with a discussion of relationships. Can. J. Zool. 70:1934–1946.

7 APPENDIXES

7.1 Appendix A: Coding systems used elsewhere

Fisheries departments of the top fisheries producing countries of the world (and many others) were approached to provide information for this summary. Replies were not received from at least 20 countries.

Country	Coding System	Information Supplied By†
Austria	none	O. Schultz/B. Herzig, Naturhistorisches Museum Wien
Canada	currently use separate zonal systems consisting of three digits and a three-letter identifier; plan to implement a numeric system of seven or twelve (NODC*) digits	D. Rivard, Fisheries and Oceans
Costa Rica	none	W. Bussing, Universidad de Costa Rica
Iceland	local system under revision; use FAO's** three-letter identifier for international work	G. Stefánsson, Hafrannsóknastofnunin
India	four-digit system	P. James, Central Marine Fisheries Institute
Indonesia	none	S. Bahar, Research Institute of Marine Fisheries
Israel	none	D. Golani/A. Ben-Tuvia, Hebrew University of Jerusalem
Japan	have a comprehensive system but rarely used; use a three-digit identifier in joint observer program with Canada and the USA	A. Yatsu, Fisheries Agency of Japan; K. Sasaki, Kochi University; H. Horikawa, Nansei National Fisheries Research Institute
Kuwait	none but one to be implemented shortly	M. Hossaini, Kuwait Institute for Scientific Research
New Zealand	three-letter system	P. McMillan, Ministry of Agriculture and Fisheries
Nigeria	none	M. Okpanefe, Nigerian Institute for Oceanography and Marine Research
Norway	possibly use seven-character mnemonic code or the RUBIN*** system	R. Froese, International Center for Living Aquatic Resources Management (Philippines); E. Stengård, Nordic Code Centre (Sweden)
Peru	none	B. Cervantes, Instituto del Mar del Peru
Philippines	none	R. Froese, International Center for Living Aquatic Resources Management

Continued...

(Appendix A Table continued...)

Romania	none	T. Nalbant, Institute of Biological Sciences
Saudi Arabia	FAO** system	A. Al-Medbil, Ministry of Agriculture and Water
South Africa	a few numeric systems	G. Cliff, Natal Sharks Board
Sweden	RUBIN*** codes and numbers	E. Stengård, Nordic Code Centre
Taiwan	none	K-T Shao, Academia Sinica
Russia	four–five-digit system	A. Kotlyar, Academy of Sciences
United Kingdom of Great Britain	NODC* system; three-letter FAO**	R. Ayers, Ministry of Agriculture, Fisheries and Food
United States of America	four-digit system (National Marine Fisheries Service) for commercial or managed fisheries; twelve-digit system (NODC*) for taxonomy	M. Holliday, National Marine Fisheries Service

† Researchers listed are not necessarily involved with the design, management or use of their country's coding system. The institutions listed are within the country in question unless otherwise indicated.

* NODC = National Oceanographic Data Center (USA). The NODC coding system consists of up to twelve digits divided into six two-digit taxonomic categories.

** FAO = Food and Agriculture Organisation (of the United Nations). FAO use a three-letter identifier in conjunction with a thirteen-digit code (for systematic sorting) and a two-digit species group code.

*** RUBIN = Routine for Biological Information (managed by the Nordic Code Centre). RUBIN codes are mnemonic, consisting of eight characters and two digits. RUBIN numbers, which are used for systematic sorting, consist of twelve digits.

7.2 Appendix B: CAAB users

State/Territory Government users:

Australian Maritime College
Department of Primary Industries, Queensland (Land Use and Fisheries)
Department of Primary Industry and Fisheries, Northern Territory (Fisheries Research and Development)
Fisheries Department of Western Australia
Marine Resources Division, Tasmania
New South Wales Department of Land and Water Conservation
New South Wales Fisheries
Queensland Department of Environment
South Australian Research and Development Institute (Aquatic Sciences) †
Victorian Department of Conservation and Natural Resources (Fisheries Branch)

Commonwealth Government users:

Australian Bureau of Statistics
Australian Institute of Marine Science
Australian Fisheries Management Authority
Bureau of Resource Sciences
CSIRO Division of Marine Research (Australia-wide)
Fisheries Policy Branch, Department of Primary Industries and Energy

Industry/other users:

Sydney Aquarium
Australasian Regional Association of Zoological Parks and Aquaria

† FISHLIST used previously by one biologist

7.3 Appendix C: Functional and design specifications of CAAB

FISHLIST

Species Codes for Australian Aquatic Fauna and Flora

Functional Specification

and

Preliminary Design Specification

November, 1990

Functional Specification

1. Title

1.1. The short title of the system is: "FISHLIST".

1.2. The full title of the system is:
"Species Codes for Australian Aquatic Fauna and Flora".

2. Date

This functional specification is dated 20th November, 1990

3. Preparation

This specification was prepared by Graeme Morris and Peter Last of the CSIRO Marine Laboratories.

Enquiries should be directed to:

Graeme Morris
CSIRO Marine Laboratories
Box 120
Cleveland Qld 4163

07.286.8222

4. General Description

4.1. Primary Objective

The FISHLIST system is to maintain a list containing a single, structured 8-digit numeric code for each species of marine and freshwater animal or plant (fish, crustacea, molluscs, algae, seagrass, etc) found (actually or potentially) in Australian waters, or imported as a seafood product. The system will also hold, as appropriate,

for each species, one or more scientific names (genus and specific names, with qualifier if necessary and reference if available), as well as common names and/or recommended marketing names.

4.2. Operation

The primary driving force for use of this list is people who need codes for species about which they want to store information (eg catch) in a database. Users are responsible for identification of their species. This may be by using the recognised literature and keys to find an accepted scientific name for the species, or by comparing it with voucher or other specimens to find a match (see the Appendix headed "What is a species?" for further details on this process). From this identification, they will use the FISHLIST system to find a code, either by direct access, or by request to the taxonomy section or by reference to a printed copy of the list. Note that, because some identification keys may be old and species names change (see the Appendix), the name for which the user is trying to find a code may no longer be current, even though the species is on the list, now under a different name. In such a case, it is important that the user be able to search through previous (non-current but still legal) names.

In the case where a species name is not on the list, the user will request the taxonomy section of CSIRO Division of Fisheries to add it. A voucher specimen should accompany the request. CSIRODF will check (using FISHLIST, the literature and their knowledge and expertise) that it is not a species which is already on the list under a different name. If it is on the list under a different name, and the name that the requester has supplied is not on FISHLIST as a valid synonym, it will be added (for next time!) and the requester will be advised. If the species is one which is not yet on FISHLIST, it will be added by the taxonomy section of CSIRODF.

There will be cases where a species code is required (to use for storing information in a database), but the fish has not been fully identified. These may be new species or may, after investigation, turn out to be species which are already on the list. These fish are assigned a "temporary" code which is not one of the normal series of codes. It is expected that, when the fish is identified, it will either be one that already has a number or will be assigned a new code in the normal series if it is a new species.

Printed copies of the list will be needed for external users to consult to find codes from names. Machine-readable copies of the list will be needed by other computer systems holding databases using the codes so that they can translate the codes into names.

5. Data integrity rules

Referential integrity

5.1. Before a family code can be added, its category (suprafamilial) code must exist. A category must not be deleted if families exist for that category.

5.2. Before a species code can be added, its family code must exist. A family code must not be deleted if species exist for that family.

Scientific names

5.3. The structure of a scientific name is as follows:

Genus species qualifiers Authority

eg *Thunnus maccoyii* (Castlenau, 1872)
eg *Sillago robusta* Stead, 1908
eg *Hyporhamphus regularis ardelio* (Whitley, 1931)

5.3.1. The genus name is always a single word and its first letter is always capitalised.

5.3.2. The species name is usually one word but may be more and has no capitals.

5.3.3. The qualifiers field may be used for such entries as:

"cf xxxxxxx"

It is usually absent.

5.3.4. The authority is of the form:

Surname, YYYY, or

(Surname, YYYY) - the brackets indicate that a change has been made since the original description. The name and date do not, however, change.

where YYYY is a year.

The first letter of the surname is capitalised.

5.3.5. To be a legal and complete species name, the genus, species and authority must be present. However, there will be occasions where an entry may be made to the list with one or more of these missing.

5.3.6. The genus and species name are either italicised or underlined.

5.4. The same genus must not occur in two different families.

5.5. It is possible for a species to have no scientific name

Species codes

5.6. Particular patterns of codes may only be assigned by particular people:

ccfff001 - ccfff799:	CSIRO taxonomist
ccfff800 - ccfff899:	Any user - FISHLIST will not hold these numbers and should stop any attempt to use them on the central list.
ccfff900 - ccfff990:	CSIRO taxonomist
ccfff991 - ccfff999:	Defined - no one to redefine
cc950000 - cc979999:	Not currently used.
cc980000 - cc989999:	Any user - FISHLIST will not hold these numbers and should stop any attempt to use them on the central list.
cc990000 - cc999999:	CSIRO taxonomist.

cc = 01 to 99 (category)
fff = 001 to 949 (family)

Common/marketing names

5.7. Common names are valid only for a States or part thereof.

5.8. Marketing names are valid Australia-wide.

5.9. Marketing names are a subset of common names, ie a marketing name is always a legal common name in all States.

5.10. A common name or a marketing name may encompass more than one species.

5.11. It is possible for a species to have no common name

5.12. It is possible for a species to have no marketing name

Current/legal

5.13. At any time, there may be more than one scientific name related to the code for a family or species. Some of these will be legal synonyms and others will be names used in the past which are no longer accepted. However, there will always be only one "current" name (the senior synonym).

5.14. A category may have more than one name but only one will be "current".

5.15. At any time, there may be more than one common name in any one State or area related to the code for a family or species. Some of these will be legal names and others will be names used in the past which are no longer accepted. There may be more than one "current" legal common name.

5.16. At any time, there may be only one acceptable marketing name for any species.

5.17. Only one record for each primary key in each table (except common/marketing names) may be 'current'.

5.18. Any record which is 'current' must also be legal.

5.19. The same scientific name may not be in current use for two species.

5.20. A species may be defined by more than one specimen, (eg in more than one place), but one will be identified as 'current'.

5.21. A vacated code may not be reused

6. Design considerations

6.1. Because of possible misspellings (and slight changes of spelling over time) all comparisons of names should use an algorithm like SOUNDEX.

6.2. It must not be possible for a person to add or modify a record without updating the appropriate audit trail items in the record.

6.3. All history must be kept, in a form easily accessible to users, except where the entries were originally incorrect due to mistyping and could not have caused confusion to outside users.

6.4. The system must, when it is (or could be) expecting an addition, ask first for the name and then return a suggested species code and status. If the species is on the list, the code will be the current code and status will be "Already on list". If it is not on the list, the code will be the next available code in the appropriate series (actual species, commercial).

6.5. The system must automatically maintain the "currency" information (dates, etc). Users must not be permitted to accidentally change this data.

6.6. A coding system must be available to use for species which have been caught and need to be added to a catch database, but have not yet been fully identified. The numbers assigned for this purpose are a subset of the 8-digit coding system and consist of the species numbers 800-899 within every family and families 960-969 within each category. These numbers will never be used on the central list and their meaning will be internal to the database or organisation within which they are used. It is the expectation that they will later be converted to a different, permanent, number.

6.7. Changes which could cause confusion to users must be notified by way of regular, automatically generated, reports. These changes include:

6.7.1. addition of new species

6.7.2. changes in currency of names (addition of new, current name or promotion of previously legal name to be current name).

6.7.3. deletion of a name as a legal name

6.8. The system must include facilities for transfer of lists of species in appropriate formats to other systems, in particular to AFZIS.

6.9. The fact that CSIRO maintains this list on behalf of many external users must be kept in mind. The nature of this list as a "service" to others, rather than a completely internal facility implies some constraints.

6.10. Structure and meaning of the species codes

The species code is an 8-digit numeric code, structured as follows:

1st 2 digits — Category code

Not yet completely defined.

00 is reserved to provide compatibility with the current 6-digit codes, which will stay in circulation for a changeover period. See later section on "Conversion".

Categories for which codes will be assigned include be fish, crustaceans, molluscs, echinoderms, coelenterates, ascidians, algae, seagrasses, etc.

Next 3 digits (3-5) — Family code.

The family codes used for fish are based on a system used at the Australian Museum and since adopted by other museums in Australia. An attempt will be made to assign the codes for other groups as systematically as possible.

Family codes 990-999 in each category are reserved for (usually commercial) groupings of species which span families (eg shark).

Family codes 980-989 in each category are reserved for the same purpose as 990-999 (groups which span families) but are to be used for locally-defined groups on a temporary basis, similar to species numbers 800-899 below.

Last 3 digits (6-8) Species number

This is a consecutive species number within the family. This applies up to species number 799 within the family (ccfff799) and then special coding systems take over. Numbers 800 to 899 within the family are reserved to be used locally as temporary codes for species that have not been rigorously identified. The expectation is that these will be reassigned to a permanent species number in the range 000 to 799 in time. Numbers 900 to 999 within the family are reserved for identifiable and nameable commercial groupings within the family (eg 00441904 is tuna, a subgroup of species within family 441, category 00).

6.11. In this system, the species is to be identified by the specimen or specimens lodged in the CSIRODFR reference collection and this entity will be what the code relates to (see Appendix A). This correspondence between code and specimen will be continually added to but would only be changed in exceptional circumstances (eg a specimen moved to a different family, a specimen found to be 2 species, two or more specimens on the list found to be one species).

7. Users

The list is used by a large and expanding number of governmental and industry groups for the identification of marine species in computer databases. In particular, it is used for species coding in the Australian Fishing Zone Information System, which is used to store all logbook data from Commonwealth-managed fisheries. It is now by far the most widely used list for the purpose in Australia and is rapidly assuming its originally envisaged role of a standard Australian list.

7.1. CSIRO Taxonomy section

Primary responsibility for maintenance and integrity of the list rests with the taxonomy section of the CSIRO Division of Fisheries, although outside organisations often initiate the requests which add new species to the list.

7.2. CSIRO scientists

CSIRO scientists will often need to find a code for a species that they have caught on a research cruise. The CSIRO catch database identifies a species by its species code on FISHLIST. The CSIRO scientists will also be responsible for providing specimens for the reference collection to assist in future identification of the species.

This will also mean that CSIRO scientists may identify existing species by comparison with specimens, rather than by reference to the literature or keys.

7.3. Operators of external databases

In the same way as CSIRO scientists use FISHLIST codes for storing species information in catch databases, many other organisations use the same codes. They are more remote from the CSIRO specimens which help in species identification, so will often determine the species code from the species name, after some other form of identification. To assist with providing meaningful output (names instead of codes), people designing such databases will need access to machine-readable copies of cross references between codes and current names.

7.4. Users of databases

Users of both the CSIRO database and external databases will sometimes need to have access to species codes to formulate queries against the databases where species information is stored using FISHLIST codes, although most databases will offer a simplified way of doing this without knowing codes, for routine queries. In cases where output from the databases is provided in the form of species codes, users will need access to FISHLIST codes to interpret this information.

8. Interfaces with other systems

8.1. Input

There is no input from other computerised systems. New species or updates to the list are generated in various ways but always manually entered.

8.2. Output

Complete species lists in machine-readable form must be available for database systems holding catch and effort information. In particular, the AFZIS system maintained by the Australian Fisheries Service must receive regular updates of the complete list with numbers, current scientific and common names only, in a form easily accessed by its catch and effort subsystem. Other systems will require updates of either the complete list or subsets yet to be defined. No such other systems have been specifically identified at this time.

9. Operations

9.1. Insert

9.1.1. Add new species to list

9.1.2. Add new scientific name
- current
- not current

9.1.3. Add new common name
- current
- not current

9.1.4. Add new marketing name
- current
- not current

9.2. Update (probably done by insert of new "current" record)

9.2.1. Change scientific name
- genus
- specific name

9.2.2. Correct error

9.2.3. Revision of family
- previously separate species lumped together
- previously single species split

9.3. Report

9.3.1. Query on name
- species
  - scientific
    - current
    - ever used
  - common/marketing
    - current
    - ever used
- family

9.3.2. Query on species code

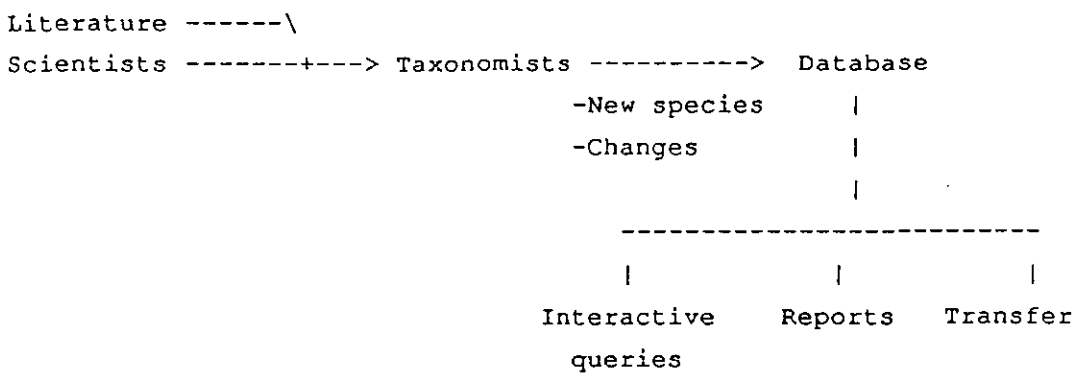
9.3.3. Query on location of specimen

9.3.4. Printed reports
- alphabetical list by scientific name
- alphabetical list by common name
- numeric listing

(The reports should have options to print only current or full historical information)

9.3.5. Transfer list of species to another computer
- complete
  - current
  - historical
- subset based on codes in another database

10. Data flow



11. Volumes

There are currently about 3500 species entries on the list. With the addition of synonymies, it can be expected that there will be about 7000 scientific names and approximately the same number of common names.

Past experience indicates that there will be of the order of:

30 additions of new species per year
20 changes of scientific name per year

It could be expected that there will need to be a transfer of the complete list to AFZIS (assuming that they are on different hardware/software platforms) approximately every 2 months.

We have no information to suggest the volume of interactive queries since it is not a feature currently available (all access is through printed copies of the list). It could be expected to be small initially and may then become the major form of access.

12. Present system

12.1. Description

The list currently exists as a series of sequential files, each containing a list of species name/code correspondences. A combined list is generated as required from these individual lists. Each list was originally maintained for a particular purpose by a particular scientist, in consultation with a central person who attempted to ensure that codes were not duplicated. In many cases, these scientists have now either left the Division or have moved on to new projects and have little interest in maintaining the lists. There is no longer much point in keeping these separate lists.

The combined list is made available in three forms. Two of these are for people to read and use as reference documents. The difference between them is that one is sorted into alphabetical order by species scientific name and the other is sorted by code number. The third form is a computer file structured for reading by computer programs. This is used, for example, by the Australian Fishing Zone Information System (AFZIS) for species identification.

Currently the species code is a 6-digit code, constructed in basically the same method as proposed above for the last 6 digits of the 8-digit code. However, it is only systematic for fish species (codes 000000 - 470999), and the "family" codes above 599 have been used in a fairly ad hoc manner for all non-fish species.

12.2. Recognised problems

It has been recognised for some time that the current FISHLIST system, which was developed over 10 years ago, is inadequate for present needs. It was never properly designed but merely evolved and sat on top of other requirements. The 6-digit coding system (see later), while entirely adequate for fishes, has not lent itself to the addition of other marine animals, which have been added in a non-systematic manner. The system does not maintain satisfactory information on changes made to the list, nor does it keep adequate information on synonyms for species names, resulting often in requests for addition of "new" species which are merely the same species under an older name which may have been deleted from the list.

12.3. Major differences between present system and proposed system

Changes fall into the following areas:

12.3.1. Species codes will relate much more strictly to an Australian specimen of the species rather than to the name, and the list will be maintained with that convention in mind.

12.3.2. Species codes will be 8 digits and will handle non-fish species properly and systematically (ie in families similar to the structure for fish species) while maintaining the fish species codes substantially untouched (only the addition of a two digits category code).

12.3.3. The history of changes other than typing errors will be kept.

13. Conversion

The current proposal is to include all 6-digit codes as legal 8-digit codes for a conversion period of several years. This will be accomplished by assigning them a "category code" of 00, which will not change the value of the code. This list of 6-digit codes will no longer be maintained nor added to.

All 6-digit codes relating to fish species will be duplicated into an 8-digit code with the appropriate category code for fish added to the front.

All 6-digit codes relating to non-fish species will need to be changed to 8-digit codes systematically within the appropriate categories.

14. Funding

The CSIRO Division of Fisheries Research has been given a grant by the Fisheries Industry Research and Development Trust Fund to:

- develop a new system for maintaining the list
- systematically investigate the taxonomic aspects of the list.

15. Time frame

The project has funding for two years starting from 1 July, 1990. Most of the effort (and money) will be spent on the taxonomic exercise and a taxonomist has been hired to carry out this task. It is desirable to have this computer system in operation as soon as possible, although it is recognised that the taxonomist can do useful work without it being completed. It is envisaged that this system should be in operation before the end of June, 1991.

16. Target platform (hardware and software)

Since the Division already has ORACLE as its database system, it is expected that the system will be developed using this. Currently, it is installed on a MicroVax II at the Cleveland (Brisbane) laboratory at is expected that FISHLIST will be developed on this Vax. Since the system will finally need to run at the Division's Hobart site, which currently only has ORACLE on a Macintosh computer and has no database system on its main Vax facility, it is expected that FISHLIST will be, for its initial use, ported to a PC running ORACLE.

Areas yet to be addressed include:

16.1. Whether we provide network access for interactive queries

16.2. Whether it is possible to provide users with copies of the complete system as a PC application as well as data.

17. Operational considerations

17.1. Misidentifications

The list needs to be maintained in such a way as to cause minimum pain to external users. In particular, the relationship between code and species as defined above must be borne in mind. It must be remembered that external users will usually not have access even to local specimens maintained by CSIRO.

17.1.1. Misidentification of the local specimen

If it is discovered that the local specimen, to which the code on the list refers, has been misidentified, it will probably be necessary, in order to avoid confusion, to make the current code number invalid (and never reuse it) and create either one or two new numbers. One would be for the original specimen, with new identifying information. The other would be for the species that it was thought the specimen referred to. However, this second one would only be added if:

- this species was known to occur in Australian waters, and
- a specimen was provided.

The reason for invalidating the existing number is because it needs to be assumed that external users may have correctly identified the species from information available to them and used the code on the list corresponding to the name. Invalidation of the number will bring the problem to their attention when next their copies of the list are updated. Users should also be specifically informed, particularly where they are likely to have used the code. Users will need to change all entries in their databases which refer to this species.

17.1.2. Misidentification of a species to be coded (against the local specimen)

This may be caused either because the local specimen is wrong and the species is right (in which case the action above should be initiated), or because of "operator error" causing a local misidentification and therefore miscoding of the species in a user's database. In this case, of course, when the mistake is later found, the user will be responsible for repairing their databases in which they have used the incorrect code.

17.2. Taxonomic dynamism

Revisions of the list will occur where species are renumbered. This will occur through taxonomic revisions of families. Normally, this will be expected to affect all people involved in identifying specimens of families affected by the revision and it is natural to change the codes to reflect the new understanding of the taxonomy. At the least, however, users must be informed of these changes, preferably in advance.

17.3. User registration

Several operations above require that all users be able to be contacted, either to inform them of changes or to provide regular updates to the list. This will mean that a list of known users will need to be maintained for this purpose.

18. Security

This system holds no confidential data and access will be unrestricted. However, modifications must be restricted to a single source, the CSIRO taxonomist and full audit trails of changes must be kept by the database management software, as well as the history kept within the records themselves.

Preliminary design specification

1. Initial database design

Record	Item	Type	Size	Nulls?	Meaning
Category	Category_code	INTEGER	2	No	
	Category_name	CHAR	20	No	
	Category_desc	CHAR	240	Yes	
Family_scientific_name	Category_code	INTEGER	2	No	
	Family_code	INTEGER	3	No	
	Family_scientific_name	CHAR	20	No	
	(plus others - see below)				
Family_common_name	Category_code	INTEGER	2	No	
	Family_code	INTEGER	3	No	
	Family_common_name	CHAR	20	No	
	(plus others - see below)				
Family_description	Category_code	INTEGER	2	No	
	Family_code	INTEGER	3	No	
	Family_description	CHAR	240	Yes	
	(plus others - see below)				
Species	Category_code	INTEGER	2	No	
	Family_code	INTEGER	3	No	
	Species_number	INTEGER	3	No	
	Species_code	Virtual			Concatenation of category_code, family_code, species_number
	Specimen_location_code	INTEGER	4	No	
	Specimen_reference	CHAR	20	No	
	Photo_reference	CHAR	20	Yes	
	Description	CHAR	240	Yes	

	Previous_code	INTEGER	8	Yes	
	Holotype_location_code	INTEGER	4	Yes	
	Holotype_reference	CHAR	20	Yes	
	(plus others - see below)				
Species_scientific_name	Category_code	INTEGER	2	No	
	Family_code	INTEGER	3	No	
	Species_number	INTEGER	3	No	
	Genus	CHAR	20	Yes	
	Specific name	CHAR	20	Yes	
	Scientific_name	Virtual			Concatenation of genus and species_name
	Name_qualifier	CHAR	100	Yes	
	Authority	CHAR	100	Yes	
	Full_scientific_name	Virtual			Concatenation of scientific name, qualifier and authority
	(plus others - see below)				
Species_common_name	Category_code	INTEGER	2	No	
	Family_code	INTEGER	3	No	
	Species_number	INTEGER	3	No	
	State code	CHAR	3	No	
	Subarea code	CHAR	30	Yes	
	Common_name	CHAR	30	Yes	
	(plus others - see below)				
Species_common_name	Category_code	INTEGER	2	No	
	Family_code	INTEGER	3	No	
	Species_number	INTEGER	3	No	
	State code	CHAR	3	No	
	(plus others - see below)				
Commercial_group	Group_species_code	INTEGER	8	No	
	Member_species_code	INTEGER	8	No	

User	Organisation	CHAR	30	Yes
	Name	CHAR	240	Yes
	Position	CHAR	240	Yes
	Address	CHAR	240	Yes
	Phone	CHAR	240	Yes
	Fax	CHAR	240	Yes
Location	Location_code	INTEGER	4	No
	Location_name	CHAR	20	No
	Contact_person	CHAR	240	Yes
	Position	CHAR	240	Yes
	Address	CHAR	240	Yes
	Phone	CHAR	240	Yes
	Fax	CHAR	240	Yes
	Other_contact_methods	CHAR	240	Yes
	(plus others - see below)			

All records except "category" have the following additional items since there may be multiple occurrences of the record for each value of the primary key. Only one occurrence is "current" for any primary key value, but there may be many "legal" values, as well as "illegal" values.

Current	LOGICAL	No
Current_from	DATE	Yes
Current_to	DATE	Yes
Legal	LOGICAL	No
Legal_from	DATE	Yes
Legal_to	DATE	Yes

All records have the follcwing audit trail items. For them to be useful, the system must have a way to ensure that they are updated for any insert and/or update operation on the record.

Date_entered	DATE		No
Person_who_entered	CHAR	30	No
Date_modified	DATE		Yes
Person_who_modified	CHAR	30	Yes
Modification_description	CHAR	240	Yes

7.4 Appendix D: Ichthyofaunal component of CAAB

This is a list of the Australian ichthyofauna added to the coding system to date. It includes imported species and commercial groupings of species and is up-to-date as of December, 1994; most, but not all, species described or recorded from Australia since then are included. Voucher specimen numbers, common names and comments are not included here but are available on request.

It is common practice to designate letters (e.g. *Apristurus* sp. A) or numbers (e.g. *Parvicrepis* sp. 1) to undescribed species. Both are used here following various authors. Information in square brackets refers the reader to a publication, taxonomist or institution that (or who) can provide more information on the species listed.

37 003000 — **FAMILY PETROMYZONTIDAE** —
37 003001 *Geotria australis* Gray, 1851
37 003002 *Mordacia mordax* (Richardson, 1846)
37 003003 *Mordacia praecox* Potter, 1968

37 004000 — **FAMILY MYXINIDAE** —
37 004002 *Eptatretus cirrhatus* (Forster, 1801)
37 004001 *Eptatretus longipinnis* Strahan, 1975

37 005000 — **FAMILY HEXANCHIDAE** —
37 005001 *Heptranchias perlo* (Bonnaterre, 1788)
37 005005 *Hexanchus griseus* (Bonnaterre, 1788)
37 005004 *Hexanchus nakamurai* Teng, 1962
37 005002 *Notorynchus cepedianus* (Péron, 1807)

37 006000 — **FAMILY CHLAMYDOSELACHIDAE** —
37 006001 *Chlamydoselachus anguineus* Garman, 1884

37 007000 — **FAMILY HETERODONTIDAE** —
37 007003 *Heterodontus galeatus* (Günther, 1870)
37 007001 *Heterodontus portusjacksoni* (Meyer, 1793)
37 007002 *Heterodontus zebra* (Gray, 1831)

37 008000 — **FAMILY ODONTASPIDIDAE** —
37 008001 *Carcharias taurus* Rafinesque, 1810
37 008003 *Odontaspis ferox* (Risso, 1810)

37 009000 — **FAMILY MEGACHASMIDAE** —
37 009001 *Megachasma pelagios* Taylor, Compagno & Struhsaker, 1983

37 009000 — **FAMILY MITSUKURINIDAE** —
37 009002 *Mitsukurina owstoni* Jordan, 1898

37 009000 — **FAMILY PSEUDOCARCHARIIDAE** —
37 009003 *Pseudocarcharias kamoharai* (Matsubara, 1936)

37 010000 — **FAMILY LAMNIDAE** —
37 010003 *Carcharodon carcharias* (Linnaeus, 1758)
37 010001 *Isurus oxyrinchus* Rafinesque, 1810
37 010002 *Isurus paucus* Guitart Manday, 1966
37 010004 *Lamna nasus* (Bonnaterre, 1788)

37 011000 — **FAMILY CETORHINIDAE** —
37 011001 *Cetorhinus maximus* (Gunnerus, 1765)

37 012000 — **FAMILY ALOPIIDAE** —
37 012003 *Alopias pelagicus* Nakamura, 1935
37 012002 *Alopias superciliosus* (Lowe, 1839)
37 012001 *Alopias vulpinus* (Bonnaterre, 1788)

37 013000 — **FAMILY BRACHAELURIDAE** —
37 013013 *Brachaelurus colcloughi* (Ogilby, 1908)
37 013007 *Brachaelurus waddi* (Bloch & Schneider, 1801)

37 013000 — **FAMILY HEMISCYLLIDAE** —
37 013008 *Chiloscyllium punctatum* Müller & Henle, 1838
37 013014 *Hemiscyllium ocellatum* (Bonnaterre, 1788)
37 013015 *Hemiscyllium trispeculare* Richardson, 1843

37 013000 — **FAMILY PARASCYLLIDAE** —
37 013002 *Parascyllium collare* Ramsay & Ogilby, 1888
37 013005 *Parascyllium ferrugineum* McCulloch, 1911
37 013018 *Parascyllium* sp. A [in Last & Stevens, 1994]
37 013019 *Parascyllium* sp. B [in ISR Munro collection]
37 013004 *Parascyllium variolatum* (Duméril, 1853)

37 013000 — **FAMILY STEGASTOMATIDAE** —
37 013006 *Stegostoma fasciatum* (Hermann, 1783)

37 013000 — **FAMILY ORECTOLOBIDAE** —
37 013011 *Eucrossorhinus dasypogon* (Bleeker, 1867)
37 013003 *Orectolobus maculatus* (Bonnaterre, 1788)
37 013001 *Orectolobus ornatus* (De Vis, 1883)
37 013016 *Orectolobus* sp. A [in Last & Stevens, 1994]
37 013017 *Orectolobus wardi* Whitley, 1939
37 013012 *Sutorectus tentaculatus* (Peters, 1865)

37 013000 — **FAMILY GINGLYMOSTOMATIDAE** —
37 013010 *Nebrius ferrugineus* (Lesson, 1830)

37 014000 — **FAMILY RHINCODONTIDAE** —
37 014001 *Rhincodon typus* Smith, 1828

37 015000 — **FAMILY SCYLIORHINIDAE** —
37 015021 *Apristurus longicephalus* Nakaya, 1975
37 015014 *Apristurus* sp. A [in Last & Stevens, 1994]
37 015015 *Apristurus* sp. B [in Last & Stevens, 1994]
37 015016 *Apristurus* sp. C [in Last & Stevens, 1994]
37 015017 *Apristurus* sp. D [in Last & Stevens, 1994]
37 015018 *Apristurus* sp. E [in Last & Stevens, 1994]
37 015019 *Apristurus* sp. F [in Last & Stevens, 1994]
37 015020 *Apristurus* sp. G [in Last & Stevens, 1994]
37 015027 *Asymbolus analis* (Ogilby, 1885)
37 015022 *Asymbolus* sp. A [in Last & Stevens, 1994]
37 015023 *Asymbolus* sp. B [in Last & Stevens, 1994]
37 015010 *Asymbolus* sp. C [in Last & Stevens, 1994]
37 015024 *Asymbolus* sp. D [in Last & Stevens, 1994]
37 015025 *Asymbolus* sp. E [in Last & Stevens, 1994]
37 015026 *Asymbolus* sp. F [in Last & Stevens, 1994]
37 015003 *Asymbolus vincenti* (Zietz, 1908)
37 015005 *Atelomycterus fasciatus* Compagno & Stevens, 1993
37 015028 *Atelomycterus macleayi* Whitley, 1939
37 015029 *Aulohalaelurus labiosus* (Waite, 1905)
37 015007 *Cephaloscyllium fasciatum* Chan, 1966
37 015001 *Cephaloscyllium laticeps* (Duméril, 1853)
37 015013 *Cephaloscyllium* sp. A [in Last & Stevens, 1994]
37 015030 *Cephaloscyllium* sp. B [in Last & Stevens, 1994]
37 015031 *Cephaloscyllium* sp. C [in Last & Stevens, 1994]
37 015032 *Cephaloscyllium* sp. D [in Last & Stevens, 1994]
37 015033 *Cephaloscyllium* sp. E [in Last & Stevens, 1994]
37 015009 *Galeus boardmani* (Whitley, 1928)
37 015008 *Galeus gracilis* Compagno & Stevens, 1993
37 015034 *Galeus* sp. B [in Last & Stevens, 1994]
37 015004 *Halaelurus boesemani* Springer & D'Aubrey, 1972
37 015035 *Halaelurus* sp. A [in Last & Stevens, 1994]
37 015036 *Parmaturus* sp. A [in Last & Stevens, 1994]

37 016000 — **FAMILY PSEUDOTRIAKIDAE** —
37 016001 *Pseudotriakis microdon* Capello, 1868

37 017000 — **FAMILY TRIAKIDAE** —
37 017003 *Furgaleus macki* (Whitley, 1943)
37 017008 *Galeorhinus galeus* (Linnaeus, 1758)
37 017010 *Hemitriakis abdita* Compagno & Stevens, 1993
37 017009 *Hemitriakis falcata* Compagno & Stevens, 1993
37 017006 *Hypogaleus hyugaensis* (Miyosi, 1939)
37 017007 *Iago garricki* Fourmanoir & Rivaton, 1979
37 017001 *Mustelus antarcticus* Günther, 1870
37 017005 *Mustelus* sp. A [in Last & Stevens, 1994]
37 017004 *Mustelus* sp. B [in Last & Stevens, 1994]

— Commercial Groupings —
37 017901 *Mustelus* spp

37 018000 — **FAMILY CARCHARHINIDAE** —
37 018027 *Carcharhinus albimarginatus* (Rüppell, 1837)
37 018012 *Carcharhinus altimus* (Springer, 1950)
37 018033 *Carcharhinus amblyrhynchoides* (Whitley, 1934)
37 018030 *Carcharhinus amblyrhynchos* (Bleeker, 1856)
37 018026 *Carcharhinus amboinensis* (Müller & Henle, 1839)
37 018001 *Carcharhinus brachyurus* (Günther, 1870)
37 018023 *Carcharhinus brevipinna* (Müller & Henle, 1839)
37 018034 *Carcharhinus cautus* (Whitley, 1945)
37 018009 *Carcharhinus dussumieri* (Valenciennes, 1839)
37 018008 *Carcharhinus falciformis* (Bibron, 1839)
37 018035 *Carcharhinus fitzroyensis* (Whitley, 1943)
37 018040 *Carcharhinus galapagensis* (Snodgrass & Heller, 1905)
37 018021 *Carcharhinus leucas* (Valenciennes, 1839)
37 018039 *Carcharhinus limbatus* (Valenciennes, 1839)
37 018032 *Carcharhinus longimanus* (Poey, 1861)
37 018025 *Carcharhinus macloti* (Müller & Henle, 1839)
37 018036 *Carcharhinus melanopterus* (Quoy & Gaimard, 1824)
37 018003 *Carcharhinus obscurus* (Lesueur, 1818)
37 018007 *Carcharhinus plumbeus* (Nardo, 1827)
37 018013 *Carcharhinus sorrah* (Valenciennes, 1839)
37 018014 *Carcharhinus tilstoni* (Whitley, 1950)
37 018022 *Galeocerdo cuvier* (Péron & Lesueur, 1822)
37 018041 *Glyphis* sp. A [in Last & Stevens, 1994]
37 018005 *Loxodon macrorhinus* Müller & Henle, 1839
37 018029 *Negaprion acutidens* (Rüppell, 1837)
37 018004 *Prionace glauca* (Linnaeus, 1758)
37 018006 *Rhizoprionodon acutus* (Rüppell, 1837)
37 018037 *Rhizoprionodon oligolinx* Springer, 1964
37 018024 *Rhizoprionodon taylori* (Ogilby, 1915)
37 018038 *Triaenodon obesus* (Rüppell, 1837)

— Commercial Groupings —
37 018900 Carcharhinidae spp
37 018901 *Carcharhinus* spp [except *C. brachyurus*]
37 018902 *Carcharhinus* spp [*C. brachyurus* & *C. obscurus* only]

— Imported Species —
37 018790 *Scoliodon laticaudus* Müller & Henle, 1838

37 018000 — **FAMILY HEMIGALEIDAE** —
37 018020 *Hemigaleus microstoma* Bleeker, 1852
37 018011 *Hemipristis elongata* (Klunzinger, 1871)

37 019000 — **FAMILY SPHYRNIDAE** —
37 019003 *Eusphyra blochii* (Cuvier, 1816)
37 019001 *Sphyrna lewini* (Griffith & Smith, 1834)
37 019002 *Sphyrna mokarran* (Rüppell, 1837)
37 019004 *Sphyrna zygaena* (Linnaeus, 1758)

37 020000 — **FAMILY SQUALIDAE** —
37 020023 *Centrophorus granulosus* (Bloch & Schneider, 1801)
37 020010 *Centrophorus harrissoni* McCulloch, 1915
37 020001 *Centrophorus moluccensis* Bleeker, 1860
37 020009 *Centrophorus squamosus* (Bonnaterre, 1788)
37 020011 *Centrophorus uyato* (Rafinesque, 1810)
37 020024 *Centroscyllium kamoharai* Abe, 1966
37 020025 *Centroscymnus coelolepis* Bocage & Capello, 1864
37 020012 *Centroscymnus crepidater* (Bocage & Capello, 1864)
37 020019 *Centroscymnus owstoni* Garman, 1906
37 020013 *Centroscymnus plunketi* (Waite, 1910)
37 020026 *Cirrhigaleus barbifer* Tanaka, 1912
37 020002 *Dalatias licha* (Bonnaterre, 1788)
37 020003 *Deania calcea* (Lowe, 1839)
37 020004 *Deania quadrispinosa* (McCulloch, 1915)
37 020032 *Etmopterus brachyurus* Smith & Radcliffe, 1912
37 020021 *Etmopterus granulosus* (Günther, 1880)
37 020005 *Etmopterus lucifer* Jordan & Snyder, 1902
37 020033 *Etmopterus molleri* Whitley, 1939
37 020015 *Etmopterus pusillus* (Lowe, 1839)
37 020027 *Etmopterus* sp. A [in Last & Stevens, 1994]
37 020022 *Etmopterus* sp. B [in Last & Stevens, 1994]
37 020028 *Etmopterus* sp. C [in Last & Stevens, 1994]
37 020029 *Etmopterus* sp. D [in Last & Stevens, 1994]
37 020030 *Etmopterus* sp. E [in Last & Stevens, 1994]
37 020031 *Etmopterus* sp. F [in Last & Stevens, 1994]
37 020034 *Euprotomicrus bispinatus* (Quoy & Gaimard, 1824)
37 020014 *Isistius brasiliensis* (Quoy & Gaimard, 1824)

37 020035 *Scymnodalatias albicauda* Taniuchi & Garrick, 1986
37 020036 *Somniosus pacificus* Bigelow & Schroeder, 1944
37 020017 *Squaliolus aliae* Teng, 1959
37 020008 *Squalus acanthias* Linnaeus, 1758
37 020006 *Squalus megalops* (Macleay, 1881)
37 020007 *Squalus mitsukurii* Jordan & Snyder, 1903
37 020037 *Squalus* sp. A [in Last & Stevens, 1994]
37 020038 *Squalus* sp. B [in Last & Stevens, 1994]
37 020018 *Squalus* sp. C [in Last & Stevens, 1994]
37 020039 *Squalus* sp. D [in Last & Stevens, 1994]
37 020040 *Squalus* sp. E [in Last & Stevens, 1994]
37 020041 *Squalus* sp. F [in Last & Stevens, 1994]
37 020042 *Zameus squamulosus* (Günther, 1877)

— Commercial Groupings —
37 020902 *Centrophorus* spp
37 020901 *Squalus* spp [Greeneye dogfishes only]

37 021000 **— FAMILY OXYNOTIDAE —**
37 021001 *Oxynotus bruniensis* (Ogilby, 1893)

37 022000 **— FAMILY ECHINORHINIDAE —**
37 022001 *Echinorhinus brucus* (Bonnaterre, 1788)
37 022002 *Echinorhinus cookei* Pietschmann, 1928

37 023000 **— FAMILY PRISTIOPHORIDAE —**
37 023002 *Pristiophorus cirratus* (Latham, 1794)
37 023001 *Pristiophorus nudipinnis* Günther, 1870
37 023003 *Pristiophorus* sp. A [in Last & Stevens, 1994]
37 023004 *Pristiophorus* sp. B [in Last & Stevens, 1994]

— Commercial Groupings —
37 023900 *Pristiophorus* spp

37 024000 **— FAMILY SQUATINIDAE —**
37 024001 *Squatina australis* Regan, 1906
37 024004 *Squatina* sp. A [in Last & Stevens, 1994]
37 024005 *Squatina* sp. B [in Last & Stevens, 1994]
37 024002 *Squatina tergocellata* McCulloch, 1914

— Commercial Groupings —
37 024900 *Squatina* spp

37 025000 **— FAMILY PRISTIDAE —**
37 025002 *Anoxypristis cuspidata* (Latham, 1794)
37 025004 *Pristis clavata* Garman, 1906
37 025003 *Pristis microdon* Latham, 1794
37 025005 *Pristis pectinata* Latham, 1794
37 025001 *Pristis zijsron* Bleeker, 1851

37 026000 **— FAMILY RHYNCHOBATIDAE —**
37 026002 *Rhina ancylostoma* Bloch & Schneider, 1801
37 026001 *Rhynchobatus djiddensis* (Forsskål, 1775)

37 027000 **— FAMILY RHINOBATIDAE —**
37 027009 *Aptychotrema rostrata* (Shaw & Nodder, 1794)
37 027007 *Aptychotrema* sp. A [in Last & Stevens, 1994]
37 027001 *Aptychotrema vincentiana* (Haacke, 1885)
37 027003 *Rhinobatos* sp. A [in Last & Stevens, 1994]
37 027010 *Rhinobatos typus* Bennett, 1830
37 027002 *Trygonorrhina fasciata* Müller & Henle, 1841
37 027008 *Trygonorrhina melaleuca* Scott, 1954
37 027006 *Trygonorrhina* sp. A [in Last & Stevens, 1994]

37 028000 **— FAMILY TORPEDINIDAE —**
37 028003 *Torpedo macneilli* (Whitley, 1932)
37 028006 *Torpedo* sp. A [in Last & Stevens, 1994]

— Commercial Groupings —
37 028900 Torpedinidae spp

37 028000 **— FAMILY NARCINIDAE —**
37 028007 *Narcine* sp. A [in Last & Stevens, 1994]
37 028004 *Narcine* sp. B [in Last & Stevens, 1994]
37 028008 *Narcine* sp. C [in Last & Stevens, 1994]
37 028002 *Narcine tasmaniensis* Richardson, 1841
37 028005 *Narcine westraliensis* McKay, 1966

37 028000 **— FAMILY HYPNIDAE —**
37 028001 *Hypnos monopterygium* (Shaw & Nodder, 1795)

37 031000 **— FAMILY RAJIDAE —**
37 031016 *Bathyraja* sp. A [in Last & Stevens, 1994]
37 031017 *Irolita* sp. A [in Last & Stevens, 1994]
37 031001 *Irolita waitii* (McCulloch, 1911)
37 031019 *Notoraja ochroderma* McEachran & Last, 1994
37 031018 *Notoraja* sp. A [in Last & Stevens, 1994]
37 031015 *Notoraja* sp. C [in Last & Stevens, 1994]
37 031020 *Notoraja* sp. D [in Last & Stevens, 1994]
37 031027 *Pavoraja alleni* McEachran & Fechhelm, 1982
37 031021 *Pavoraja laxipella* Yearsley & Last, 1992
37 031009 *Pavoraja nitida* (Günther, 1880)
37 031022 *Pavoraja* sp. B [in Last & Stevens, 1994]
37 031023 *Pavoraja* sp. C [in Last & Stevens, 1994]
37 031024 *Pavoraja* sp. D [in Last & Stevens, 1994]
37 031025 *Pavoraja* sp. E [in Last & Stevens, 1994]
37 031026 *Pavoraja* sp. F [in Last & Stevens, 1994]
37 031002 *Raja australis* Macleay, 1884
37 031003 *Raja cerva* Whitley, 1939
37 031010 *Raja gudgeri* (Whitley, 1940)
37 031041 *Raja hyperborea* Collett, 1879
37 031007 *Raja lemprieri* Richardson, 1845
37 031042 *Raja polyommata* Ogilby, 1910
37 031005 *Raja* sp. A [in Last & Stevens, 1994]
37 031028 *Raja* sp. B [in Last & Stevens, 1994]
37 031029 *Raja* sp. C [in Last & Stevens, 1994]
37 031030 *Raja* sp. D [in Last & Stevens, 1994]
37 031031 *Raja* sp. E [in Last & Stevens, 1994]
37 031011 *Raja* sp. F [in Last & Stevens, 1994]
37 031032 *Raja* sp. G [in Last & Stevens, 1994]
37 031033 *Raja* sp. H [in Last & Stevens, 1994]
37 031034 *Raja* sp. I [in Last & Stevens, 1994]
37 031035 *Raja* sp. J [in Last & Stevens, 1994]
37 031036 *Raja* sp. K [in Last & Stevens, 1994]
37 031037 *Raja* sp. L [in Last & Stevens, 1994]
37 031038 *Raja* sp. M [in Last & Stevens, 1994]
37 031013 *Raja* sp. N [in Last & Stevens, 1994]
37 031039 *Raja* sp. O [in Last & Stevens, 1994]
37 031040 *Raja* sp. P [in Last & Stevens, 1994]
37 031006 *Raja whitleyi* Iredale, 1938

— Commercial Groupings —
37 031900 *Raja* spp

37 033000 **— FAMILY ANACANTHOBATIDAE —**
37 033001 *Anacanthobatis* sp. A [in Last & Stevens, 1994]
37 033002 *Anacanthobatis* sp. B [in Last & Stevens, 1994]

37 035000 **— FAMILY DASYATIDIDAE —**
37 035012 *Dasyatis annotatus* Last, 1987
37 035001 *Dasyatis brevicaudata* (Hutton, 1875)
37 035008 *Dasyatis fluviorum* Ogilby, 1908
37 035004 *Dasyatis kuhlii* (Müller & Henle, 1841)
37 035013 *Dasyatis leylandi* Last, 1987
37 035028 *Dasyatis microps* (Annandale, 1908)
37 035021 *Dasyatis* sp. A [in Last & Stevens, 1994]
37 035002 *Dasyatis thetidis* Ogilby, 1899
37 035010 *Dasyatis violacea* (Bonaparte, 1832)
37 035023 *Himantura chaophraya* Monkolprasit & Roberts, 1990
37 035024 *Himantura fai* Jordan & Seale, 1906
37 035019 *Himantura granulata* (Macleay, 1883)
37 035025 *Himantura jenkinsii* (Annandale, 1909)

37 035022 *Himantura* sp. A [in Last & Stevens, 1994]
37 035020 *Himantura toshi* Whitley, 1939
37 035003 *Himantura uarnak* (Forsskål, 1775)
37 035026 *Himantura undulata* (Bleeker, 1852)
37 035011 *Pastinachus sephen* (Forsskål, 1775)
37 035009 *Taeniura lymma* (Forsskål, 1775)
37 035017 *Taeniura meyeni* Müller & Henle, 1841
37 035027 *Urogymnus asperrimus* (Bloch & Schneider, 1801)

37 037000 — **FAMILY GYMNURIDAE** —
37 037001 *Gymnura australis* (Ramsay & Ogilby, 1886)

37 037000 — **FAMILY HEXATRYGONIDAE** —
37 037002 *Hexatrygon* sp. A [in Last & Stevens, 1994]

37 038000 — **FAMILY UROLOPHIDAE** —
37 038023 *Plesiobatis daviesi* (Wallace, 1967)
37 038015 *Trygonoptera mucosa* Whitley, 1939
37 038016 *Trygonoptera ovalis* Last & Gomon, 1987
37 038017 *Trygonoptera personata* Last & Gomon, 1987
37 038013 *Trygonoptera* sp. A [in Last & Stevens, 1994]
37 038014 *Trygonoptera* sp. B [in Last & Stevens, 1994]
37 038006 *Trygonoptera testacea* (Müller & Henle, 1841)
37 038001 *Urolophus bucculentus* Macleay, 1884
37 038020 *Urolophus circularis* McKay, 1966
37 038002 *Urolophus cruciatus* (Lacépède, 1804)
37 038008 *Urolophus expansus* McCulloch, 1916
37 038010 *Urolophus flavomosaicus* Last & Gomon, 1987
37 038003 *Urolophus gigas* Scott, 1954
37 038021 *Urolophus lobatus* McKay, 1966
37 038011 *Urolophus mitosis* Last & Gomon, 1987
37 038022 *Urolophus orarius* Last & Gomon, 1987
37 038004 *Urolophus paucimaculatus* Dixon, 1969
37 038018 *Urolophus* sp. A [in Last & Stevens, 1994]
37 038019 *Urolophus* sp. B [in Last & Stevens, 1994]
37 038005 *Urolophus sufflavus* Whitley, 1929
37 038024 *Urolophus* var. *viridis* [Stanley]
37 038007 *Urolophus viridis* McCulloch, 1916
37 038009 *Urolophus westraliensis* Last & Gomon, 1987

37 039000 — **FAMILY MYLIOBATIDIDAE** —
37 039003 *Aetobatus narinari* (Euphrasen, 1790)
37 039002 *Aetomylaeus nichofii* (Schneider, 1801)
37 039005 *Aetomylaeus vespertilio* (Bleeker, 1852)
37 039001 *Myliobatis australis* Macleay, 1881
37 039004 *Myliobatis hamlyni* Ogilby, 1911

37 040000 — **FAMILY RHINOPTERIDAE** —
37 040002 *Rhinoptera javanica* Müller & Henle, 1841
37 040001 *Rhinoptera neglecta* Ogilby, 1912

37 041000 — **FAMILY MOBULIDAE** —
37 041004 *Manta birostris* (Donndorff, 1798)
37 041001 *Mobula eregoodootenke* (Cuvier, 1829)
37 041002 *Mobula japanica* (Müller & Henle, 1841)
37 041003 *Mobula thurstoni* (Lloyd, 1908)

37 042000 — **FAMILY CHIMAERIDAE** —
37 042005 *Chimaera* sp. A [in Last & Stevens, 1994]
37 042006 *Chimaera* sp. B [in Last & Stevens, 1994]
37 042007 *Chimaera* sp. C [in Last & Stevens, 1994]
37 042008 *Chimaera* sp. D [in Last & Stevens, 1994]
37 042009 *Chimaera* sp. E [in Last & Stevens, 1994]
37 042003 *Hydrolagus lemures* (Whitley, 1939)
37 042001 *Hydrolagus ogilbyi* (Waite, 1898)
37 042010 *Hydrolagus* sp. A [in Last & Stevens, 1994]
37 042011 *Hydrolagus* sp. B [in Last & Stevens, 1994]

37 043000 — **FAMILY CALLORHINCHIDAE** —
37 043001 *Callorhinchus milii* (Bory de Saint-Vincent, 1823)

37 044000 — **FAMILY RHINOCHIMAERIDAE** —
37 044003 *Harriotta haeckeli* Karrer, 1972
37 044001 *Harriotta raleighana* Goode & Bean, 1895
37 044004 *Rhinochimaera africana* Compagno, Stehmann & Ebert, 1990
37 044002 *Rhinochimaera pacifica* (Mitsukuri, 1895)

37 046000 — **FAMILY CERATODONTIDAE** —
37 046001 *Neoceratodus forsteri* (Krefft, 1870)

37 053000 — **FAMILY ELOPIDAE** —
37 053001 *Elops hawaiensis* Regan, 1909

37 054000 — **FAMILY MEGALOPIDAE** —
37 054001 *Megalops cyprinoides* (Broussonet, 1782)

37 055000 — **FAMILY ALBULIDAE** —
37 055001 *Albula neoguinaica* Valenciennes, 1847

37 056000 — **FAMILY ANGUILLIDAE** —
37 056001 *Anguilla australis* Richardson, 1841
37 056003 *Anguilla bicolor* McClelland, 1844
37 056004 *Anguilla obscura* Günther, 1872
37 056002 *Anguilla reinhardtii* Steindachner, 1867

37 057000 — **FAMILY MORINGUIDAE** —
37 057005 *Moringua abbreviata* Loveridge, 1925
37 057001 *Moringua ferruginea* Bliss, 1883
37 057002 *Moringua javanica* (Kaup, 1856)
37 057003 *Moringua microchir* Bleeker, 1853
37 057004 *Neoconger tuberculatus* (Castle, 1965)

37 059000 — **FAMILY CHLOPSIDAE** —
37 059001 *Kaupichthys atronasus* Schultz, 1953
37 059002 *Kaupichthys brachychirus* Schultz, 1953
37 059003 *Kaupichthys hyoproroides* (Strömman, 1896)

37 060000 — **FAMILY MURAENIDAE** —
37 060017 *Anarchias allardicei* Jordan & Starks, 1906
37 060018 *Anarchias cantonensis* (Schultz, 1943)
37 060020 *Anarchias fuscus* Smith, 1962
37 060019 *Anarchias leucurus* (Snyder, 1904)
37 060022 *Anarchias seychellensis* Smith, 1962
37 060012 *Channomuraena* sp. [McCosker, pers comm]
37 060023 *Echidna nebulosa* (Ahl, 1789)
37 060024 *Echidna polyzona* (Richardson, 1845)
37 060025 *Echidna unicolor* Schultz, 1953
37 060026 *Enchelycore bayeri* (Schultz, 1953)
37 060027 *Enchelycore ramosa* (Griffin, 1926)
37 060028 *Enchelynassa canina* (Quoy & Gaimard, 1824)
37 060029 *Gymnomuraena zebra* (Shaw & Nodder, 1797)
37 060064 *Gymnothorax annasona* (Whitley, 1937)
37 060030 *Gymnothorax australicola* Lavenberg, 1992
37 060031 *Gymnothorax boschii* (Bleeker, 1853)
37 060032 *Gymnothorax buroensis* (Bleeker, 1857)
37 060013 *Gymnothorax* cf *angusticauda* Weber & de Beaufort, 1916
37 060033 *Gymnothorax chilospilus* Bleeker, 1865
37 060002 *Gymnothorax cribroris* Whitley, 1932
37 060034 *Gymnothorax eurostus* (Abbott, 1861)
37 060016 *Gymnothorax favagineus* Bloch & Schneider, 1801
37 060035 *Gymnothorax fimbriatus* (Bennett, 1832)
37 060036 *Gymnothorax flavimarginatus* (Rüppell, 1830)
37 060037 *Gymnothorax fuscomaculata* (Schultz, 1953)
37 060038 *Gymnothorax gracilicauda* Jenkins, 1903
37 060039 *Gymnothorax javanicus* (Bleeker, 1859)
37 060040 *Gymnothorax kidako* (Temminck & Schlegel, 1847)
37 060004 *Gymnothorax longinquus* (Whitley, 1948)
37 060042 *Gymnothorax margaritophorus* Bleeker, 1865
37 060044 *Gymnothorax melatremus* Schultz, 1953
37 060045 *Gymnothorax meleagris* (Shaw & Nodder, 1795)
37 060046 *Gymnothorax monochrous* Bleeker, 1864

37 060065 *Gymnothorax nubilus* (Richardson, 1848)
37 060047 *Gymnothorax nudivomer* (Playfair, 1866)
37 060063 *Gymnothorax obesus* (Whitley, 1932)
37 060048 *Gymnothorax pindae* Smith, 1962
37 060067 *Gymnothorax polyuranodon* (Bleeker, 1853)
37 060066 *Gymnothorax porphyreus* (Guichenot, 1848)
37 060006 *Gymnothorax prasinus* (Richardson, 1848)
37 060049 *Gymnothorax prionodon* Ogilby, 1895
37 060005 *Gymnothorax pseudothyrsoideus* (Bleeker, 1852)
37 060003 *Gymnothorax reticularis* Bloch, 1795
37 060051 *Gymnothorax rueppelliae* (McClelland, 1844)
37 060052 *Gymnothorax scriptus* Bloch & Schneider, 1801
37 060008 *Gymnothorax* sp. 3 [in Sainsbury *et al.*, 1985]
37 060009 *Gymnothorax* sp. 4 [in Sainsbury *et al.*, 1985]
37 060053 *Gymnothorax undulatus* (Lacépède, 1803)
37 060054 *Gymnothorax woodwardi* McCulloch, 1912
37 060055 *Gymnothorax wooliensis* (Whitley, 1968)
37 060056 *Gymnothorax zonipectis* Seale, 1906
37 060057 *Muraena australiae* Richardson, 1848
37 060058 *Rhinomuraena quaesita* Garman, 1888
37 060015 *Siderea picta* (Ahl, 1789)
37 060010 *Siderea thyrsoidea* (Richardson, 1845)
37 060060 *Strophidon sathete* (Hamilton, 1822)
37 060061 *Uropterygius concolor* Rüppell, 1838
37 060021 *Uropterygius insuentus* (Whitley, 1932)
37 060068 *Uropterygius kamar* McCosker & Randall, 1977
37 060014 *Uropterygius marmoratus* (Lacépède, 1803)
37 060062 *Uropterygius micropterus* (Bleeker, 1852)

— Commercial Groupings —
37 060900 *Gymnothorax* spp

37 063000 **— FAMILY MURAENESOCIDAE —**
37 063003 *Muraenesox bagio* (Hamilton-Buchanan, 1822)
37 063002 *Muraenesox cinereus* (Forsskål, 1775)
37 063001 *Oxyconger leptognathus* (Bleeker, 1858)

37 065000 **— FAMILY NETTASTOMATIDAE —**
37 065001 *Nettastoma parviceps* Günther, 1877
37 065003 *Nettastoma solitarium* Castle & Smith, 1981
37 065004 *Nettenchelys gephyra* Castle & Smith, 1981
37 065005 *Saurenchelys finitima* (Whitley, 1935)
37 065006 *Saurenchelys stylura* (Lea, 1913)

37 067000 **— FAMILY CONGRIDAE —**
37 067006 *Ariosoma anago* (Temminck & Schlegel, 1847)
37 067003 *Ariosoma mauritianum* (Pappenheim, 1914)
37 067014 *Ariosoma scheelei* (Strömman, 1896)
37 067012 *Bassanago bulbiceps* Whitley, 1948
37 067013 *Bassanago hirsutus* (Castle, 1960)
37 067022 *Bathycongrus guttulatus* (Günther, 1887)
37 067023 *Bathycongrus randalli* Ben-Tuvia, 1993
37 067010 *Blachea xenobranchialis* Karrer & Smith, 1980
37 067015 *Conger cinereus* Rüppell, 1830
37 067007 *Conger verreauxi* Kaup, 1856
37 067001 *Conger wilsoni* (Bloch & Schneider, 1801)
37 067009 *Diploconger polystigmatus* Kotthaus, 1968
37 067024 *Gavialiceps javanicus* Karmovskaya, 1993
37 067002 *Gnathophis longicauda* (Ramsay & Ogilby, 1888)
37 067004 *Gnathophis* sp. [in ISR Munro collection]
37 067016 *Gnathophis umbrellabius* (Whitley, 1948)
37 067017 *Heteroconger hassi* (Klausewitz & Eibl-Eibesfeldt, 1959)
37 067005 *Lumiconger arafura* (Castle & Paxton, 1984)
37 067018 *Macrocephenchelys soela* Castle, 1988
37 067008 *Parabathymyrus* sp. [Castle, pers comm]
37 067019 *Poeciloconger kapala* Castle, 1988
37 067011 *Rhynchoconger ectenurus* (Jordan & Richardson, 1909)
37 067020 *Scalanago lateralis* Whitley, 1935
37 067021 *Uroconger lepturus* (Richardson, 1845)

— Commercial Groupings —
37 067900 *Conger* spp [*C. verreauxi* & *C. wilsoni* only]

37 068000 — **FAMILY OPHICHTHIDAE** —
37 068011 *Brachysomophis cirrocheilos* (Bleeker, 1857)
37 068038 *Brachysomophis crocodilinus* (Bennett, 1833)
37 068013 *Callechelys catostomus* (Forster, 1801)
37 068012 *Callechelys marmorata* (Bleeker, 1853)
37 068014 *Cirrhimuraena calamus* (Günther,1870)
37 068041 *Echelus uropterus* (Temminck & Schlegel, 1842)
37 068017 *Ichthyapus vulturus* Weber & de Beaufort, 1916
37 068018 *Leiuranus semicinctus* (Lay & Bennett, 1839)
37 068016 *Leiuranus versicolor* (Richardson, 1848)
37 068019 *Malvoliophis pinguis* (Günther, 1872)
37 068003 *Muraenichthys australis* Macleay, 1881
37 068004 *Muraenichthys breviceps* Günther, 1876
37 068020 *Muraenichthys gymnotus* Bleeker, 1857
37 068021 *Muraenichthys iredalei* Whitley, 1927
37 068022 *Muraenichthys laticaudatus* (Ogilby, 1897)
37 068005 *Muraenichthys lengomena* Scott, 1980
37 068006 *Muraenichthys lingowenah* Scott, 1975
37 068023 *Muraenichthys macropterus* Bleeker, 1857
37 068037 *Muraenichthys nicholsae* Waite, 1904
37 068039 *Muraenichthys thompsoni* Jordan & Richardson, 1908
37 068025 *Myrichthys colubrinus* (Boddaert, 1781)
37 068026 *Myrichthys maculosus* (Cuvier, 1816)
37 068040 *Myrophis microchir* (Bleeker, 1865)
37 068027 *Neenchelys retropinna* Smith & Böhlke, 1983
37 068028 *Ophichthus cephalozona* (Bleeker, 1864)
37 068029 *Ophichthus episcopus* Castelnau, 1878
37 068030 *Ophichthus melanochir* Bleeker, 1865
37 068031 *Ophichthus rutidodermatoides* (Bleeker, 1853)
37 068001 *Ophisurus serpens* (Linnaeus, 1758)
37 068033 *Phyllopichthus xenodontus* Gosline, 1951
37 068034 *Pisodonophis boro* (Hamilton-Buchanan, 1822)
37 068002 *Pisodonophis cancrivorus* (Richardson, 1848)
37 068035 *Schismorhynchus labialis* (Seale, 1917)
37 068036 *Yirrkala lumbricoides* (Bleeker, 1864)

37 070000 — **FAMILY SYNAPHOBRANCHIDAE** —
37 070006 *Histiobranchus bathybius* (Günther, 1877)
37 070007 *Histiobranchus bruuni* Castle, 1964
37 070002 *Ilyophis brunneus* Gilbert, 1891
37 070005 *Simenchelys parasiticus* Gill, 1879
37 070003 *Synaphobranchus affinis* Günther, 1877
37 070004 *Synaphobranchus brevidorsalis* Günther, 1887
37 070001 *Synaphobranchus capensis* (Barnard, 1923)
37 070008 *Synaphobranchus kaupi* Johnson, 1862

37 073000 — **FAMILY DERICHTHYIDAE** —
37 073003 *Derichthys* sp. [Last]
37 073001 *Nessorhamphus danae* Schmidt, 1931
37 073002 *Nessorhamphus ingolfianus* (Schmidt, 1912)

37 075000 — **FAMILY SERRIVOMERIDAE** —
37 075001 *Serrivomer beanii* Gill & Ryder, 1883
37 075002 *Serrivomer bertini* Bauchot, 1959

37 076000 — **FAMILY NEMICHTHYIDAE** —
37 076002 *Avocettina acuticeps* (Regan, 1916)
37 076003 *Avocettina infans* (Günther, 1878)
37 076004 *Labichthys yanoi* (Mead & Rubinoff, 1966)
37 076001 *Nemichthys curvirostris* (Strömman, 1896)
37 076005 *Nemichthys scolopaceus* Richardson, 1848

37 077000 — **FAMILY CYEMATIDAE** —
37 077001 *Cyema atrum* Günther, 1878

37 078000 — **FAMILY SACCOPHARYNGIDAE** —
37 078001 *Saccopharynx schmidti* Bertin, 1934

37 079000 — **FAMILY EURYPHARYNGIDAE** —
37 079001 *Eurypharynx pelecanoides* Vaillant, 1882

37 081000 — **FAMILY HALOSAURIDAE** —
37 081004 *Aldrovandia affinis* (Günther, 1877)
37 081003 *Halosauropsis macrochir* (Günther, 1878)
37 081002 *Halosaurus pectoralis* McCulloch, 1926
37 081001 *Halosaurus* sp. [in NW Shelf Guide, CSIRO, unpubl.]

37 082000 — **FAMILY LIPOGENYIDAE** —
37 082001 *Lipogenys* sp. [in Paxton *et al.*, 1989]

37 083000 — **FAMILY NOTACANTHIDAE** —
37 083002 *Notacanthus chemnitzii* Bloch, 1788
37 083001 *Notacanthus sexspinus* Richardson, 1846

37 085000 — **FAMILY CLUPEIDAE** —
37 085020 *Amblygaster leiogaster* (Valenciennes, 1847)
37 085006 *Amblygaster sirm* (Walbaum, 1792)
37 085015 *Anodontostoma chacunda* (Hamilton-Buchanan, 1822)
37 085010 *Dussumieria elopsoides* Bleeker, 1849
37 085021 *Escualosa thoracata* (Valenciennes, 1847)
37 085001 *Etrumeus teres* (DeKay, 1842)
37 085022 *Herklotsichthys blackburni* (Whitley, 1948)
37 085023 *Herklotsichthys castelnaui* (Ogilby, 1897)
37 085031 *Herklotsichthys collettei* Wongratana, 1987
37 085024 *Herklotsichthys gotoi* Wongratana, 1983
37 085007 *Herklotsichthys koningsbergeri* (Weber & de Beaufort, 1912)
37 085008 *Herklotsichthys lippa* (Whitley, 1931)
37 085025 *Herklotsichthys quadrimaculatus* (Rüppell, 1837)
37 085026 *Hyperlophus translucidus* McCulloch, 1917
37 085005 *Hyperlophus vittatus* (Castelnau, 1875)
37 085012 *Ilisha lunula* Kailola, 1986
37 085016 *Nematalosa come* (Richardson, 1846)
37 085019 *Nematalosa erebi* (Günther, 1868)
37 085017 *Nematalosa vlaminghi* (Munro, 1957)
37 085009 *Pellona ditchela* Valenciennes, 1847
37 085027 *Potamalosa richmondia* (Macleay, 1879)
37 085014 *Sardinella albella* (Valenciennes, 1847)
37 085028 *Sardinella brachysoma* Bleeker, 1852
37 085013 *Sardinella gibbosa* (Bleeker, 1849)
37 085018 *Sardinella lemuru* Bleeker, 1853
37 085002 *Sardinops neopilchardus* (Steindachner, 1879)
37 085029 *Spratelloides delicatulus* (Bennett, 1832)
37 085030 *Spratelloides gracilis* (Temminck & Schlegel, 1846)
37 085003 *Spratelloides robustus* Ogilby, 1897
37 085004 *Sprattus novaehollandiae* (Valenciennes, 1847)

— Commercial Groupings —
37 085901 *Nematalosa* spp [*N. vlaminghi* & *N. come* only]
37 085902 *Nematalosa* spp [*N. erebi* & *N. vlaminghi* only]

— Imported Species —
37 085790 *Clupea harengus* Linnaeus, 1758

37 086000 — **FAMILY ENGRAULIDIDAE** —
37 086014 *Encrasicholina devisi* (Whitley, 1940)
37 086015 *Encrasicholina heteroloba* (Rüppell, 1837)
37 086002 *Encrasicholina punctifer* Fowler, 1938
37 086001 *Engraulis australis* (White, 1790)
37 086007 *Papuengraulis micropinna* Munro, 1964
37 086003 *Setipinna paxtoni* Wongratana, 1987
37 086008 *Setipinna tenuifilis* (Valenciennes, 1848)
37 086020 *Stolephorus advenus* Wongratana, 1987
37 086011 *Stolephorus andhraensis* Babu Rao, 1966
37 086012 *Stolephorus brachycephalus* Wongratana, 1983
37 086010 *Stolephorus carpentariae* (De Vis, 1882)
37 086013 *Stolephorus commersonii* Lacépède, 1803
37 086006 *Stolephorus indicus* (van Hasselt, 1823)
37 086021 *Stolephorus nelsoni* Wongratana, 1987
37 086022 *Stolephorus* sp. A [in Whitehead *et al.*, 1988]
37 086016 *Stolephorus waitei* Jordan & Seale, 1926
37 086017 *Thryssa aestuaria* (Ogilby, 1910)
37 086018 *Thryssa baelama* (Forsskål, 1775)
37 086023 *Thryssa brevicauda* Roberts, 1978

37 086024 *Thryssa encrasicholoides* (Bleeker, 1852)
37 086005 *Thryssa hamiltonii* (Gray, 1835)
37 086025 *Thryssa marasriae* Wongratana, 1987
37 086019 *Thryssa scratchleyi* (Ramsay & Ogilby, 1886)
37 086004 *Thryssa setirostris* (Broussonet, 1782)

37 087000 — **FAMILY CHIROCENTRIDAE** —
37 087001 *Chirocentrus dorab* (Forsskål, 1775)
37 087002 *Chirocentrus nudus* (Swainson, 1839)

37 088000 — **FAMILY OSTEOGLOSSIDAE** —
37 088001 *Scleropages jardinii* (Saville-Kent, 1892)
37 088002 *Scleropages leichardti* Günther, 1864

37 094000 — **FAMILY SALMONIDAE** —
37 094003 *Oncorhynchus mykiss* (Walbaum, 1792)
37 094094 *Oncorhynchus* spp
37 094005 *Oncorhynchus tshawytscha* (Walbaum, 1792)
37 094001 *Salmo salar* Linnaeus, 1758
37 094004 *Salmo trutta* Linnaeus, 1758
37 094002 *Salvelinus fontinalis* (Mitchill, 1815)

— Commercial Groupings —
37 094900 Salmonidae spp [*Oncorhynchus mykiss* & *Salmo trutta* only]

— Imported Species —
37 094750 *Oncorhynchus* spp

37 097000 — **FAMILY ARGENTINIDAE** —
37 097001 *Argentina australiae* Cohen, 1958
37 097003 *Glossanodon struhsakeri* Cohen, 1970
37 097002 *Microstoma microstoma* (Risso, 1810)
37 097004 *Nansenia ardesiaca* Jordan & Thompson, 1914

37 098000 — **FAMILY BATHYLAGIDAE** —
37 098003 *Bathylagichthys australis* Kobylyanskiy, 1990
37 098004 *Bathylagichthys greyae* (Cohen, 1958)
37 098001 *Bathylagoides argyrogaster* Norman, 1930
37 098002 *Bathylagus antarcticus* Günther, 1878
37 098006 *Lipolagus ochotensis* (Schmidt, 1938)
37 098005 *Melanolagus bericoides* (Borodin, 1929)

37 099000 — **FAMILY OPISTHOPROCTIDAE** —
37 099001 *Opisthoproctus grimaldii* Zugmayer, 1911
37 099002 *Rhynchohyalus natalensis* (Gilchrist & von Bonde, 1924)
37 099003 *Winteria telescopa* Brauer, 1901

37 100000 — **FAMILY SALANGIDAE** —

— Imported Species —
37 100750 Salangidae spp

37 101000 — **FAMILY RETROPINNIDAE** —
37 101001 *Retropinna semoni* (Weber, 1895)
37 101002 *Retropinna tasmanica* McCulloch, 1920

37 102000 — **FAMILY GALAXIIDAE** —
37 102001 *Galaxias auratus* Johnston, 1883
37 102002 *Galaxias brevipinnis* Günther, 1866
37 102003 *Galaxias cleaveri* Scott, 1934
37 102004 *Galaxias fontanus* Fulton, 1978
37 102023 *Galaxias fuscus* Mack, 1936
37 102005 *Galaxias johnstoni* Scott, 1936
37 102006 *Galaxias maculatus* (Jenyns, 1842)
37 102016 *Galaxias niger* Andrews, 1985
37 102017 *Galaxias occidentalis* Ogilby, 1899
37 102018 *Galaxias olidus* Günther, 1866
37 102007 *Galaxias parvus* Frankenberg, 1968
37 102008 *Galaxias pedderensis* Frankenberg, 1968
37 102019 *Galaxias rostratus* Klunzinger, 1872

37 102009 *Galaxias tanycephalus* Fulton, 1978
37 102010 *Galaxias truttaceus* Valenciennes, 1846
37 102020 *Galaxiella munda* McDowall, 1978
37 102021 *Galaxiella nigrostriata* (Shipway, 1953)
37 102011 *Galaxiella pusilla* (Mack, 1936)
37 102012 *Paragalaxias dissimilis* (Regan, 1906)
37 102013 *Paragalaxias eleotroides* McDowall & Fulton, 1978
37 102014 *Paragalaxias julianus* McDowall & Fulton, 1978
37 102015 *Paragalaxias mesotes* McDowall & Fulton, 1978

37 102000 — **FAMILY LEPIDOGALAXIIDAE** —
37 102022 *Lepidogalaxias salamandroides* Mees, 1961

37 103000 — **FAMILY APLOCHITONIDAE** —
37 103002 *Lovettia sealii* (Johnston, 1883)

37 103000 — **FAMILY PROTOTROCTIDAE** —
37 103001 *Prototroctes maraena* Günther, 1864

37 106000 — **FAMILY GONOSTOMATIDAE** —
37 106012 *Bonapartia pedaliota* Goode & Bean, 1896
37 106013 *Cyclothone acclinidens* Garman, 1899
37 106014 *Cyclothone alba* Brauer, 1906
37 106015 *Cyclothone braueri* Jespersen & Taaning, 1926
37 106025 *Cyclothone kobayashii* Miya, 1994
37 106016 *Cyclothone microdon* (Günther, 1878)
37 106017 *Cyclothone obscura* Brauer, 1902
37 106018 *Cyclothone pallida* Brauer, 1902
37 106026 *Cyclothone parapallida* Badcock, 1982
37 106019 *Cyclothone pseudopallida* Mukhacheva, 1964
37 106010 *Diplophos rebainsi* Krefft & Parin, 1972
37 106008 *Diplophos taenia* Günther, 1873
37 106003 *Gonostoma atlanticum* Norman, 1930
37 106020 *Gonostoma bathyphilum* (Vaillant, 1888)
37 106004 *Gonostoma elongatum* Günther, 1878
37 106021 *Margrethia obtusirostra* Jespersen & Taaning, 1919

37 106000 — **FAMILY PHOTICHTHYIDAE** —
37 106022 *Ichthyococcus australis* Mukhacheva, 1980
37 106023 *Ichthyococcus intermedius* Mukhacheva, 1980
37 106009 *Ichthyococcus ovatus* (Cocco, 1838)
37 106002 *Photichthys argenteus* (Hutton, 1872)
37 106001 *Polymetme corythaeola* (Alcock, 1898)
37 106005 *Vinciguerria attenuata* (Cocco, 1838)
37 106006 *Vinciguerria nimbaria* (Jordan & Williams, 1896)
37 106007 *Vinciguerria poweriae* (Cocco, 1838)
37 106011 *Woodsia meyerwardeni* Krefft, 1973
37 106024 *Woodsia nonsuchae* (Beebe, 1932)

37 107000 — **FAMILY STERNOPTYCHIDAE** —
37 107012 *Argyripnus ephippiatus* Gilbert & Cramer, 1897
37 107004 *Argyripnus iridescens* McCulloch, 1926
37 107001 *Argyropelecus aculeatus* Valenciennes, 1849
37 107005 *Argyropelecus gigas* Norman, 1930
37 107006 *Argyropelecus hemigymnus* Cocco, 1829
37 107013 *Argyropelecus sladeni* Regan, 1908
37 107002 *Maurolicus australis* Hector, 1875
37 107024 *Maurolicus javanicus* Parin & Kobyliansky, 1993
37 107008 *Polyipnus aquavitus* Baird, 1971
37 107014 *Polyipnus elongatus* Borodulina, 1979
37 107015 *Polyipnus kiwiensis* Baird, 1971
37 107020 *Polyipnus latirastrus* Last & Harold, 1994
37 107021 *Polyipnus paxtoni* Harold, 1989
37 107016 *Polyipnus ruggeri* Baird, 1971
37 107022 *Polyipnus soelae* Harold, 1994
37 107003 *Polyipnus tridentifer* McCulloch, 1914
37 107023 *Polyipnus triphanos* Schultz, 1938
37 107009 *Sternoptyx diaphana* Hermann, 1781
37 107019 *Sternoptyx pseudobscura* Baird, 1971
37 107018 *Sternoptyx pseudodiaphana* Borodulina, 1977
37 107010 *Valenciennellus tripunctulatus* (Esmark, 1871)

37 108000 — **FAMILY ASTRONESTHIDAE** —
37 108003 *Astronesthes boulengeri* Gilchrist, 1902
37 108004 *Astronesthes cyaneus* (Brauer, 1902)
37 108015 *Astronesthes ijimai* Tanaka, 1908
37 108001 *Astronesthes indicus* Brauer, 1902
37 108005 *Astronesthes lucifer* Gilbert, 1905
37 108006 *Astronesthes lupina* Whitley, 1941
37 108007 *Astronesthes martensii* Klunzinger, 1871
37 108002 *Astronesthes niger* Richardson, 1844
37 108008 *Astronesthes psychrolutes* (Gibbs & Weitzman, 1965)
37 108009 *Astronesthes trifibulatus* Gibbs, Amaoka & Haruta, 1984
37 108010 *Borostomias antarcticus* (Lönnberg, 1905)
37 108011 *Borostomias mononema* (Regan & Trewavas, 1929)
37 108016 *Eupogonesthes xenicus* Parin & Brodulina, 1993
37 108012 *Heterophotus ophistoma* Regan & Trewavas, 1929
37 108013 *Neonesthes capensis* (Gilchrist & von Bonde, 1924)
37 108014 *Neonesthes microcephalus* Norman, 1930

37 109000 — **FAMILY MELANOSTOMIIDAE** —
37 109001 *Bathophilus abarbatus* Barnett & Gibbs, 1968
37 109009 *Bathophilus ater* (Brauer, 1902)
37 109010 *Bathophilus indicus* (Brauer, 1902)
37 109002 *Bathophilus kingi* Barnett & Gibbs, 1968
37 109003 *Bathophilus longipinnis* (Pappenheim, 1914)
37 109004 *Bathophilus nigerrimus* Giglioli, 1882
37 109005 *Bathophilus pawneei* Parr, 1927
37 109006 *Echiostoma barbatum* Lowe, 1843
37 109011 *Eustomias achirus* Parin & Pokhilskaya, 1974
37 109012 *Eustomias australensis* Gibbs, Clarke & Gomon, 1983
37 109013 *Eustomias bifilis* Gibbs, 1960
37 109014 *Eustomias bulbornatus* Gibbs, 1960
37 109007 *Eustomias enbarbatus* Welsh, 1923
37 109015 *Eustomias macronema* Regan & Trewavas, 1930
37 109016 *Eustomias macrurus* Regan & Trewavas, 1930
37 109017 *Eustomias multifilis* Parin & Pokhilskaya, 1978
37 109018 *Eustomias satterleei* Beebe, 1933
37 109019 *Eustomias schmidti* Regan & Trewavas, 1930
37 109008 *Eustomias trewavasae* Norman, 1930
37 109020 *Eustomias vitiazi* Parin & Pokhilskaya, 1974
37 109021 *Flagellostomias boureei* (Zugmayer, 1913)
37 109022 *Melanostomias globulifer* Fowler, 1934
37 109025 *Melanostomias macrophotus* Regan & Trewavas, 1930
37 109023 *Melanostomias niger* Gilchrist & von Bonde, 1924
37 109024 *Melanostomias paucilaternatus* Parin & Pokhilskaya, 1978
37 109026 *Melanostomias tentaculatus* (Regan & Trewavas, 1930)
37 109027 *Melanostomias valdiviae* Brauer, 1902
37 109028 *Opostomias micripnus* (Günther, 1878)
37 109029 *Pachystomias microdon* (Günther, 1878)
37 109030 *Photonectes albipennis* (Döderlein, 1882)
37 109031 *Photonectes braueri* (Zugmayer, 1913)
37 109032 *Photonectes caerulescens* Regan & Trewavas, 1930
37 109033 *Photonectes gracilis* Goode & Bean, 1896
37 109034 *Photonectes mirabilis* Parr, 1927
37 109035 *Photonectes parvimanus* Regan & Trewavas, 1930
37 109036 *Thysanactis dentex* Regan & Trewavas, 1930
37 109037 *Trigonolampa miriceps* Regan & Trewavas, 1930

37 110000 — **FAMILY MALACOSTEIDAE** —
37 110002 *Aristostomias* sp. [Last]
37 110001 *Malacosteus niger* Ayres, 1848

37 111000 — **FAMILY CHAULIODONTIDAE** —
37 111001 *Chauliodus sloani* Bloch & Schneider, 1801

37 112000 — **FAMILY STOMIIDAE** —
37 112001 *Stomias affinis* Günther, 1887
37 112002 *Stomias boa* (Risso, 1810)
37 112003 *Stomias longibarbatus* (Brauer, 1902)

37 113000 — **FAMILY IDIACANTHIDAE** —
37 113002 *Idiacanthus atlanticus* Brauer, 1906
37 113001 *Idiacanthus fasciola* Peters, 1877

37 114000 — **FAMILY ALEPOCEPHALIDAE** —
37 114003 *Alepocephalus bicolor* Wood-Mason & Alcock, 1891
37 114013 *Alepocephalus* sp. 1 [small scale, in ISR Munro collection]
37 114014 *Alepocephalus* sp. 2 [big scale, in ISR Munro collection]
37 114004 *Asquamiceps longmani* Fowler, 1934
37 114005 *Ericara niger* (Günther, 1878)
37 114006 *Herwigia kreffti* (Nielsen & Larsen, 1970)
37 114007 *Photostylus pycnopterus* Beebe, 1933
37 114008 *Rouleina attrita* (Vaillant, 1888)
37 114001 *Rouleina squamilatera* (Alcock, 1898)
37 114009 *Talismania antillarum* (Goode & Bean, 1896)
37 114010 *Talismania bifurcata* (Parr, 1951)
37 114012 *Talismania longifilis* (Brauer, 1902)
37 114002 *Xenodermichthys copei* (Gill, 1884)

37 115000 — **FAMILY PLATYTROCTIDAE** —
37 115002 *Holtbyrnia laticauda* Sazonov, 1976
37 115003 *Maulisia mauli* Parr, 1960
37 115001 *Persparsia kopua* (Phillipps, 1942)
37 115004 *Platytroctes apus* Günther, 1878

37 117000 — **FAMILY AULOPODIDAE** —
37 117003 *Aulopus curtirostris* Thomson, 1967
37 117001 *Aulopus purpurissatus* Richardson, 1843
37 117002 *Aulopus* sp. [in Sainsbury *et al.*, 1985]

37 118000 — **FAMILY BATHYSAURIDAE** —
37 118019 *Bathysaurus ferox* Günther, 1878
37 118008 *Saurida* cf *elongata* Temminck & Schlegel, 1846
37 118006 *Saurida filamentosa* Ogilby, 1910
37 118013 *Saurida gracilis* (Quoy & Gaimard, 1824)
37 118014 *Saurida longimanus* Norman, 1939
37 118005 *Saurida micropectoralis* Shindo & Yamada, 1972
37 118027 *Saurida nebulosa* Valenciennes, 1849
37 118016 *Saurida* sp. 2 [in Sainsbury *et al.*, 1985]
37 118020 *Saurida* sp. 3 [in Sainsbury *et al.*, 1985]
37 118028 *Saurida tumbil* (Bloch, 1795)
37 118001 *Saurida undosquamis* (Richardson, 1848)
37 118029 *Saurida wanieso* Shindo & Yamada, 1972

— **Commercial Groupings** —
37 118901 *Saurida* spp

37 118000 — **FAMILY SYNODONTIDAE** —
37 118021 *Synodus binotatus* Schultz,1953
37 118003 *Synodus dermatogenys* Fowler, 1912
37 118022 *Synodus doaki* Russell & Cressey, 1979
37 118010 *Synodus hoshinonis* Tanaka, 1917
37 118024 *Synodus houlti* McCulloch, 1921
37 118009 *Synodus indicus* (Day, 1873)
37 118015 *Synodus jaculum* Russell & Cressey, 1979
37 118011 *Synodus kaianus* (Günther, 1880)
37 118012 *Synodus macrops* Tanaka, 1917
37 118030 *Synodus oculeus* Cressey, 1981
37 118025 *Synodus rubromarmoratus* Russell & Cressey, 1979
37 118004 *Synodus sageneus* Waite, 1905
37 118007 *Synodus similis* McCulloch, 1921
37 118026 *Synodus tectus* Cressey, 1981
37 118023 *Synodus variegatus* (Lacépède, 1803)
37 118002 *Trachinocephalus myops* (Forster, 1801)

37 119000 — **FAMILY HARPADONTIDAE** —
37 119001 *Harpadon translucens* Saville-Kent, 1889

37 120000 — **FAMILY CHLOROPHTHALMIDAE** —
37 120007 *Bathysauropsis gigas* (Kamohara, 1952)
37 120002 *Chlorophthalmus agassizi* Bonaparte, 1840
37 120003 *Chlorophthalmus maculatus* Kotthaus, 1967
37 120001 *Chlorophthalmus nigripinnis* Günther, 1878
37 120004 *Chlorophthalmus nigromarginatus* Kamohara, 1953

37 120005 *Chlorophthalmus* sp. [in Sainsbury *et al.*, 1985]
37 120008 *Chlorophthalmus* sp. [Gomon, pers comm]
37 120006 *Parasudis* sp. [in Sainsbury *et al.*, 1985]

37 121000 **— FAMILY NEOSCOPELIDAE —**
37 121001 *Neoscopelus macrolepidotus* Johnson, 1863
37 121002 *Neoscopelus microchir* Matsubara, 1943
37 121003 *Neoscopelus porosus* Arai, 1969

37 122000 **— FAMILY MYCTOPHIDAE —**
37 122078 *Benthosema fibulatum* (Gilbert & Cramer, 1897)
37 122079 *Benthosema pterotum* (Alcock, 1890)
37 122024 *Benthosema suborbitale* (Gilbert, 1913)
37 122074 *Bolinichthys indicus* (Nafpaktitis & Nafpaktitis, 1969)
37 122025 *Bolinichthys longipes* (Brauer, 1906)
37 122026 *Bolinichthys nikolayi* Bekker, 1978
37 122027 *Bolinichthys photothorax* (Parr, 1928)
37 122080 *Bolinichthys pyrsobolus* (Alcock, 1890)
37 122028 *Bolinichthys supralateralis* (Parr, 1928)
37 122081 *Centrobranchus andreae* (Lütken, 1892)
37 122029 *Centrobranchus nigroocellatus* (Günther, 1873)
37 122021 *Ceratoscopelus warmingii* (Lütken, 1892)
37 122030 *Diaphus anderseni* Tåning, 1932
37 122031 *Diaphus bertelseni* Nafpaktitis, 1966
37 122032 *Diaphus brachycephalus* Tåning, 1928
37 122083 *Diaphus chrysorhynchus* Gilbert & Cramer, 1897
37 122006 *Diaphus coeruleus* (Klunzinger, 1871)
37 122001 *Diaphus danae* Tåning, 1932
37 122072 *Diaphus diademeus* Tåning, 1932
37 122015 *Diaphus drachmanni* Tåning, 1932
37 122033 *Diaphus effulgens* (Goode & Bean, 1896)
37 122034 *Diaphus fragilis* Tåning, 1928
37 122084 *Diaphus garmani* Gilbert, 1906
37 122061 *Diaphus hudsoni* Zurbrigg & Scott, 1976
37 122082 *Diaphus imposter* Nafpaktitis, Robertson & Paxton, 1995
37 122085 *Diaphus jenseni* Tåning, 1932
37 122073 *Diaphus kapalae* Nafpaktitis, Robertson & Paxton, 1995
37 122086 *Diaphus lucidus* (Goode & Bean, 1896)
37 122035 *Diaphus luetkeni* (Brauer, 1904)
37 122087 *Diaphus malayanus* Weber, 1913
37 122036 *Diaphus meadi* Nafpaktitis, 1978
37 122037 *Diaphus metopoclampus* (Cocco, 1829)
37 122038 *Diaphus mollis* Tåning, 1928
37 122012 *Diaphus ostenfeldi* Tåning, 1932
37 122039 *Diaphus parri* Tåning, 1932
37 122008 *Diaphus perspicillatus* (Ogilby, 1898)
37 122088 *Diaphus phillipsi* Fowler, 1934
37 122089 *Diaphus problematicus* Parr, 1928
37 122090 *Diaphus regani* Tåning, 1932
37 122040 *Diaphus splendidus* (Brauer, 1904)
37 122041 *Diaphus termophilus* Tåning, 1928
37 122091 *Diaphus thiollierei* Fowler, 1934
37 122013 *Diaphus watasei* Jordan & Starks, 1904
37 122042 *Diogenichthys atlanticus* (Tåning, 1928)
37 122075 *Electrona paucirastra* Bolin, 1962
37 122043 *Electrona risso* (Cocco, 1829)
37 122014 *Electrona subaspera* (Günther, 1864)
37 122044 *Gonichthys barnesi* Whitley, 1931
37 122018 *Gymnoscopelus piabilis* (Whitley, 1931)
37 122045 *Hygophum hanseni* (Tåning, 1932)
37 122004 *Hygophum hygomii* (Lütken, 1892)
37 122092 *Hygophum macrochir* (Günther, 1864)
37 122023 *Hygophum proximum* Bekker, 1965
37 122046 *Hygophum reinhardtii* (Lütken, 1892)
37 122093 *Lampadena chavesi* Collett, 1905
37 122094 *Lampadena luminosa* (Garman, 1899)
37 122047 *Lampadena notialis* Nafpaktitis & Paxton, 1968
37 122062 *Lampadena speculigera* Goode & Bean, 1896
37 122095 *Lampadena urophaos* Paxton, 1963
37 122002 *Lampanyctodes hectoris* (Günther, 1876)
37 122096 *Lampanyctus achirus* Andriashev, 1962
37 122048 *Lampanyctus alatus* Goode & Bean, 1896
37 122049 *Lampanyctus ater* Tåning, 1928
37 122019 *Lampanyctus australis* Tåning, 1932
37 122050 *Lampanyctus festivus* Tåning, 1928
37 122020 *Lampanyctus intricarius* Tåning, 1928
37 122051 *Lampanyctus lepidolychnus* Bekker, 1967

37 122063 *Lampanyctus macdonaldi* (Goode & Bean, 1896)
37 122097 *Lampanyctus nobilis* Tåning, 1928
37 122052 *Lampanyctus pusillus* (Johnson, 1890)
37 122064 *Lampanyctus* sp. [Paxton, pers comm]
37 122017 *Lampichthys procerus* (Brauer, 1904)
37 122053 *Lobianchia dofleini* (Zugmayer, 1911)
37 122054 *Lobianchia gemellarii* (Cocco, 1838)
37 122098 *Loweina rara* (Lütken, 1892)
37 122016 *Metelectrona ventralis* (Bekker, 1963)
37 122009 *Myctophum asperum* Richardson, 1845
37 122055 *Myctophum brachygnathum* (Bleeker, 1856)
37 122056 *Myctophum nitidulum* Garman, 1899
37 122099 *Myctophum obtusirostre* Tåning, 1928
37 122057 *Myctophum orientale* (Gilbert, 1913)
37 122003 *Myctophum phengodes* (Lütken, 1892)
37 122011 *Myctophum punctatum* Rafinesque, 1810
37 122100 *Myctophum selenops* Tåning, 1928
37 122101 *Myctophum spinosum* (Steindachner, 1867)
37 122058 *Notolychnus valdiviae* (Brauer, 1904)
37 122070 *Notoscopelus caudispinosus* (Johnson, 1863)
37 122022 *Notoscopelus resplendens* (Richardson, 1845)
37 122067 *Protomyctophum normani* (Tåning, 1932)
37 122102 *Protomyctophum parallelum* (Lönnberg, 1905)
37 122068 *Protomyctophum subparallelum* (Tåning, 1932)
37 122005 *Scopelopsis multipunctatus* Brauer, 1906
37 122007 *Symbolophorus barnardi* (Tåning, 1932)
37 122103 *Symbolophorus boops* (Richardson, 1845)
37 122059 *Symbolophorus evermanni* (Gilbert, 1905)
37 122069 *Taaningichthys bathyphilus* (Tåning, 1928)
37 122071 *Triphoturus nigrescens* (Brauer, 1904)

37 123000 — **FAMILY BATHYPTEROIDAE** —
37 123005 *Bathypterois guentheri* Alcock, 1889
37 123002 *Bathypterois longifilis* Günther, 1878
37 123003 *Bathypterois longipes* Günther, 1878

37 123000 — **FAMILY IPNOPIDAE** —
37 123004 *Ipnops murrayi* Günther, 1878

37 125000 — **FAMILY NOTOSUDIDAE** —
37 125003 *Luciosudis normani* Fraser-Brunner, 1931
37 125001 *Scopelosaurus ahlstromi* Bertelsen, Krefft & Marshall, 1976
37 125004 *Scopelosaurus hamiltoni* (Waite, 1916)
37 125005 *Scopelosaurus hoedti* Bleeker, 1860
37 125006 *Scopelosaurus mauli* Bertelsen, Krefft & Marshall, 1976
37 125002 *Scopelosaurus meadi* Bertelsen, Krefft & Marshall, 1976

— Commercial Groupings —
37 125902 *Scopelosaurus* spp

37 126000 — **FAMILY PARALEPIDIDAE** —
37 126006 *Lestidiops indopacificum* (Ege, 1953)
37 126003 *Lestidiops jayakari* (Boulenger, 1889)
37 126007 *Lestidium atlanticum* Borodin, 1928
37 126002 *Lestidium nudum* Gilbert, 1905
37 126008 *Lestrolepis japonica* (Tanaka, 1908)
37 126001 *Macroparalepis macrogeneion* Post, 1973
37 126005 *Notolepis risso* (Bonaparte, 1840)
37 126004 *Paralepis atlantica* Krøyer, 1868
37 126009 *Stemonosudis elegans* (Ege, 1933)
37 126010 *Stemonosudis macrura* (Ege, 1933)
37 126011 *Stemonosudis rothschildi* Richards, 1967

37 127000 — **FAMILY OMOSUDIDAE** —
37 127001 *Omosudis lowei* Günther, 1887

37 128000 — **FAMILY ALEPISAURIDAE** —
37 128002 *Alepisaurus brevirostris* Gibbs, 1960
37 128001 *Alepisaurus ferox* Lowe, 1833

37 130000 — **FAMILY EVERMANNELLIDAE** —
37 130001 *Coccorella atlantica* (Parr, 1928)
37 130002 *Evermannella balbo* (Risso, 1820)
37 130003 *Evermannella indica* Brauer, 1906

37 131000 — **FAMILY SCOPELARCHIDAE** —
37 131001 *Benthalbella infans* Zugmayer, 1911
37 131002 *Rosenblattichthys alatus* (Fourmanoir, 1970)
37 131003 *Scopelarchoides danae* Johnson, 1974
37 131004 *Scopelarchus analis* (Brauer, 1902)
37 131005 *Scopelarchus guentheri* Alcock, 1896

37 132000 — **FAMILY CETOMIMIDAE** —
37 132001 *Gyrinomimus simplex* Parr, 1946

37 133000 — **FAMILY RONDELETIIDAE** —
37 133001 *Rondeletia loricata* Abe & Hotta, 1963

37 134000 — **FAMILY BARBOURISIIDAE** —
37 134001 *Barbourisia rufa* Parr, 1945

37 136000 — **FAMILY ATELEOPODIDAE** —
37 136001 *Atelopus* sp. [in ISR Munro collection]

37 137000 — **FAMILY MIRAPINNIDAE** —
37 137001 *Parataeniophorus brevis* Bertelsen & Marshall, 1956

37 139000 — **FAMILY GIGANTURIDAE** —
37 139001 *Gigantura chuni* Brauer, 1901
37 139002 *Gigantura indica* Brauer, 1901

37 141000 — **FAMILY GONORYNCHIDAE** —
37 141001 *Gonorynchus greyi* (Richardson, 1845)

37 142000 — **FAMILY CHANIDAE** —
37 142001 *Chanos chanos* (Forsskål, 1775)

37 165000 — **FAMILY CYPRINIDAE** —
37 165001 *Carassius auratus* (Linnaeus, 1758)
37 165003 *Cyprinus carpio* Linnaeus, 1758
37 165004 *Puntius conchonius* (Hamilton, 1822)
37 165005 *Rutilus rutilus* (Linnaeus, 1758)
37 165002 *Tinca tinca* (Linnaeus, 1758)

37 188000 — **FAMILY ARIIDAE** —
37 188003 *Arius argyropleuron* Valenciennes, 1840
37 188011 *Arius armiger* De Vis, 1884
37 188012 *Arius berneyi* (Whitley, 1941)
37 188002 *Arius bilineatus* (Valenciennes, 1840)
37 188005 *Arius graeffei* Kner & Steindachner, 1866
37 188006 *Arius leptaspis* (Bleeker, 1862)
37 188007 *Arius mastersi* Ogilby, 1898
37 188010 *Arius midgleyi* Kailola & Pierce, 1988
37 188013 *Arius nella* (Valenciennes, 1840)
37 188008 *Arius proximus* Ogilby, 1898
37 188009 *Arius* sp. 2 [Kailola, unpubl.]
37 188004 *Arius* sp. 4 [Kailola, unpubl.]
37 188014 *Cinetodus froggatti* (Ramsay & Ogilby, 1886)
37 188001 *Netuma thalassinus* (Rüppell, 1837)

— **Commercial Groupings** —
37 188901 *Arius* spp

37 192000 — **FAMILY PLOTOSIDAE** —
37 192016 *Anodontiglanis dahli* Rendahl, 1922
37 192001 *Cnidoglanis macrocephalus* (Valenciennes, 1840)
37 192004 *Euristhmus lepturus* (Günther, 1864)

37 192007 *Euristhmus microceps* (Richardson, 1845)
37 192003 *Euristhmus nudiceps* (Günther, 1880)
37 192009 *Neosilurus ater* (Perugia, 1894)
37 192010 *Neosilurus brevidorsalis* (Günther, 1867)
37 192011 *Neosilurus hyrtlii* Steindachner, 1867
37 192017 *Neosilurus* sp. A [in Allen, 1988]
37 192018 *Neosilurus* sp. B [in Allen, 1988]
37 192019 *Neosilurus* sp. C [in Allen, 1988]
37 192005 *Paraplotosus albilabris* (Valenciennes, 1840)
37 192020 *Paraplotosus* sp. [see Allen & Swainston, 1988]
37 192013 *Plotosus caninus* (Hamilton-Buchanan, 1822)
37 192002 *Plotosus lineatus* (Thunberg, 1791)
37 192008 *Porochilus argenteus* (Zietz, 1896)
37 192014 *Porochilus obbesi* Weber, 1913
37 192012 *Porochilus rendahli* (Whitley, 1928)
37 192015 *Tandanus bostocki* Whitley, 1944
37 192006 *Tandanus tandanus* (Mitchell, 1838)

37 205000 — **FAMILY BATRACHOIDIDAE** —
37 205007 *Batrachomoeus dahli* (Rendahl, 1922)
37 205008 *Batrachomoeus dubius* (White, 1790)
37 205001 *Batrachomoeus occidentalis* Hutchins, 1976
37 205009 *Batrachomoeus rubricephalus* Hutchins, 1976
37 205004 *Batrachomoeus* sp. [in Sainsbury *et al.*, 1985]
37 205003 *Batrachomoeus trispinosus* (Günther, 1861)
37 205002 *Halophryne diemensis* (Lesueur, 1824)
37 205005 *Halophryne ocellatus* Hutchins, 1974
37 205006 *Halophryne queenslandiae* (De Vis, 1882)

37 206000 — **FAMILY GOBIESOCIDAE** —
37 206007 *Alabes brevis* Springer & Fraser, 1976
37 206008 *Alabes dorsalis* (Richardson, 1845)
37 206009 *Alabes hoesei* Springer & Fraser, 1976
37 206010 *Alabes parvulus* (McCulloch, 1909)
37 206004 *Aspasmogaster costatus* (Ogilby, 1885)
37 206005 *Aspasmogaster liorhynchus* Briggs, 1955
37 206006 *Aspasmogaster occidentalis* Hutchins, 1984
37 206001 *Aspasmogaster tasmaniensis* (Günther, 1861)
37 206002 *Cochleoceps bassensis* Hutchins, 1983
37 206011 *Cochleoceps bicolor* Hutchins, 1991
37 206012 *Cochleoceps orientalis* Hutchins, 1991
37 206013 *Cochleoceps spatula* (Günther, 1861)
37 206014 *Cochleoceps viridis* Hutchins, 1991
37 206023 *Conidens samoensis* (Steindachner, 1906)
37 206003 *Creocele cardinalis* (Ramsay, 1882)
37 206015 *Diademichthys lineatus* (Sauvage, 1883)
37 206016 *Discotrema crinophila* Briggs, 1976
37 206026 Genus B sp. [in Gomon *et al.*, 1994]
37 206027 Genus C sp. 1 [in Gomon *et al.*, 1994]
37 206028 Genus C sp. 2 [in Gomon *et al.*, 1994]
37 206017 *Kopua kuiteri* Hutchins, 1991
37 206020 *Lepadichthys caritus* Briggs, 1969
37 206021 *Lepadichthys frenatus* Waite, 1904
37 206018 *Lepadichthys sandaracatus* Whitley, 1943
37 206022 *Parvicrepis parvipinnis* (Waite, 1906)
37 206029 *Parvicrepis* sp. 1 [in Gomon *et al.*, 1994]
37 206030 *Parvicrepis* sp. 2 [in Gomon *et al.*, 1994]
37 206019 *Posidonichthys hutchinsi* Briggs, 1993
37 206025 *Posidonichthys* sp. [see Briggs, 1993]

37 208000 — **FAMILY LOPHIIDAE** —
37 208002 *Lophiodes infrabrunneus* Smith & Radcliffe, 1912
37 208003 *Lophiodes mutilus* (Alcock, 1894)
37 208004 *Lophiodes naresi* (Günther, 1880)
37 208001 *Lophiomus setigerus* (Vahl, 1797)

37 209000 — **FAMILY BRACHIONICHTHYIDAE** —
37 209002 *Brachionichthys hirsutus* (Lacépède, 1804)
37 209004 *Brachionichthys politus* (Richardson, 1844)
37 209006 *Brachionichthys* sp. 1 [in Last *et al.*, 1983]
37 209005 *Brachionichthys* sp. 2 [in Last *et al.*, 1983]
37 209007 *Brachionichthys* sp. 3 [Last, unpubl.]

37 209008 *Brachionichthys* sp. 5 [Last, unpubl.]
37 209003 *Brachionichthys unipennis* (Cuvier, 1817)
37 209001 *Sympterichthys verrucosus* McCulloch & Waite, 1918

37 210000 — **FAMILY ANTENNARIIDAE** —
37 210004 *Allenichthys glauerti* (Whitley, 1944)
37 210016 *Antennarius analis* (Gosline, 1957)
37 210017 *Antennarius coccineus* (Lesson, 1830)
37 210018 *Antennarius commersoni* (Latreille, 1804)
37 210019 *Antennarius dorehensis* Bleeker, 1859
37 210008 *Antennarius hispidus* (Schneider, 1801)
37 210011 *Antennarius nummifer* (Cuvier, 1817)
37 210020 *Antennarius pictus* (Shaw & Nodder, 1794)
37 210021 *Antennarius rosaceus* Smith & Radcliffe, 1912
37 210009 *Antennarius striatus* (Shaw, 1794)
37 210022 *Antennatus tuberosus* (Cuvier, 1817)
37 210005 *Echinophryne crassispina* McCulloch & Waite, 1918
37 210023 *Echinophryne reynoldsi* Pietsch & Kuiter, 1984
37 210024 *Histiophryne bougainvilli* (Valenciennes, 1837)
37 210013 *Histiophryne cryptacanthus* (Weber, 1913)
37 210025 *Histrio histrio* (Linnaeus, 1758)
37 210014 *Kuiterichthys furcipilis* (Cuvier, 1817)
37 210002 *Lophichthys boschmai* Boeseman, 1964
37 210007 *Lophiocharon trisignatus* (Richardson, 1844)
37 210015 *Phyllophryne scortea* (McCulloch & Waite, 1918)
37 210006 *Rhycherus filamentosus* (Castelnau, 1872)
37 210026 *Rhycherus gloveri* Pietsch, 1984
37 210003 *Tathicarpus butleri* Ogilby, 1907
37 210010 *Tetrabrachium ocellatum* Günther, 1880
37 210001 *Trichophryne mitchelli* (Morton, 1897)

37 211000 — **FAMILY CHAUNACIDAE** —
37 211005 *Bathychaunax* cf *melanostomus* Caruso, 1989
37 211003 *Chaunax endeavouri* Whitley, 1929
37 211001 *Chaunax fimbriatus* Hilgendorf, 1879
37 211004 *Chaunax penicillatus* McCulloch, 1915

37 212000 — **FAMILY OGCOCEPHALIDAE** —
37 212007 *Dibranchus japonicus* Amaoka & Toyoshima, 1981
37 212003 *Dibranchus* sp. 1 [in Sainsbury *et al.*, 1985]
37 212001 *Halieutaea brevicauda* Ogilby, 1910
37 212008 *Halieutaea coccinea* Alcock, 1889
37 212009 *Halieutaea fumosa* Alcock, 1894
37 212002 *Halieutaea stellata* (Vahl, 1797)
37 212006 *Malthopsis lutea* Alcock, 1891
37 212004 *Malthopsis* sp. 1 [in Sainsbury *et al.*, 1985]

37 213000 — **FAMILY MELANOCETIDAE** —
37 213001 *Melanocetus johnsoni* Günther, 1864
37 213002 *Melanocetus murrayi* Günther, 1887

37 214000 — **FAMILY DICERATIIDAE** —
37 214001 *Diceratias bispinosus* (Günther, 1887)

37 215000 — **FAMILY HIMANTOLOPHIDAE** —
37 215001 *Himantolophus appelii* (Clarke, 1878)

37 216000 — **FAMILY ONEIRODIDAE** —
37 216001 *Chaenophryne draco* Beebe, 1932
37 216002 *Dolopichthys pullatus* Regan & Trewavas, 1932
37 216003 *Oneirodes kreffti* Pietsch, 1974
37 216004 *Oneirodes sabex* Pietsch & Siegel, 1980
37 216005 *Oneirodes whitleyi* Bertelsen & Pietsch, 1983

37 217000 — **FAMILY GIGANTACTINIDAE** —
37 217001 *Gigantactis paxtoni* Bertelsen, Pietsch & Lavenberg, 1983

37 218000 — **FAMILY NEOCERATIIDAE** —
37 218001 *Neoceratias spinifer* Pappenheim, 1914

37 220000 — **FAMILY CERATIIDAE** —
37 220002 *Ceratias holboelli* Krøyer, 1845
37 220003 *Ceratias tentaculatus* (Norman, 1930)
37 220004 *Ceratias uranoscopus* Murray, 1877
37 220001 *Cryptopsaras couesii* Gill, 1883

37 221000 — **FAMILY CAULOPHRYNIDAE** —
37 221001 *Caulophryne jordani* Goode & Bean, 1896

37 222000 — **FAMILY LINOPHRYNIDAE** —
37 222001 *Haplophryne mollis* (Brauer, 1902)
37 222002 *Linophryne densiramus* Imai, 1941
37 222003 *Linophryne indica* (Brauer, 1902)

37 223000 — **FAMILY MURAENOLEPIDIDAE** —
37 223001 *Muraenolepis* cf *orangiensis* Vaillant, 1888

37 224000 — **FAMILY MELANONIDAE** —
37 224015 *Melanonus gracilis* Günther, 1878
37 224016 *Melanonus zugmayeri* Norman, 1930

37 224000 — **FAMILY MORIDAE** —
37 224008 *Antimora rostrata* (Günther, 1878)
37 224007 *Austrophycis marginata* (Günther, 1878)
37 224019 *Eeyorius hutchinsi* Paulin, 1986
37 224001 *Euclichthys polynemus* McCulloch, 1926
37 224020 *Gadella norops* Paulin, 1987
37 224009 *Halargyreus johnsonii* Günther, 1862
37 224013 *Laemonema globiceps* Gilchrist, 1906
37 224014 *Laemonema multiradiatum* Thompson, 1916
37 224018 *Lepidion inosimae* (Günther, 1887)
37 224010 *Lepidion microcephalus* Cowper, 1956
37 224017 *Lepidion schmidti* Svetovidov, 1936
37 224027 *Lotella fuliginosa* Günther, 1862
37 224023 *Lotella phycis* (Temminck & Schlegel, 1847)
37 224005 *Lotella rhacina* (Forster, 1801)
37 224002 *Mora moro* (Risso, 1810)
37 224024 *Physiculus longifilis* Weber, 1913
37 224012 *Physiculus luminosa* Paulin, 1983
37 224025 *Physiculus nigrescens* Smith & Radcliffe, 1912
37 224026 *Physiculus roseus* Alcock, 1891
37 224021 *Physiculus therosideros* Paulin, 1987
37 224006 *Pseudophycis bachus* (Forster, 1801)
37 224003 *Pseudophycis barbata* Günther, 1863
37 224011 *Pseudophycis breviuscula* (Richardson, 1846)
37 224004 *Tripterophycis gilchristi* Boulenger, 1902

— **Commercial Groupings** —
37 224900 Moridae spp [*Pseudophycis barbata* & *Lotella* species only]

37 225000 — **FAMILY BREGMACEROTIDAE** —
37 225003 *Bregmaceros atlanticus* Goode & Bean, 1886
37 225004 *Bregmaceros japonicus* Tanaka, 1908
37 225001 *Bregmaceros lanceolatus* Shen, 1960
37 225002 *Bregmaceros mcclellandi* Thompson, 1840
37 225005 *Bregmaceros nectabanus* Whitley, 1941
37 225006 *Bregmaceros rarisquamosus* Munro, 1950

37 226000 — **FAMILY GADIDAE** —
37 226001 *Gaidropsarus novaezealandiae* (Hector, 1874)

— **Imported Species** —
37 226791 *Gadus macrocephalus* Tilesius, 1810
37 226790 *Gadus morhua* Linnaeus, 1758
37 226792 *Melanogrammus aeglefinus* (Linnaeus, 1758)
37 226794 *Merlangius merlangus* (Linnaeus, 1758)
37 226795 *Micromesistius australis* Norman, 1937
37 226796 *Pollachius virens* (Linnaeus, 1758)
37 226793 *Theragra chalcogramma* (Pallas, 1811)

37 227000 — **FAMILY MERLUCCIIDAE** —
37 227003 *Lyconus* sp. [in Paxton *et al.*, 1989]
37 227001 *Macruronus novaezelandiae* (Hector, 1871)
37 227002 *Merluccius australis* (Hutton, 1872)

— Imported Species —
37 227790 *Merluccius capensis* Castelnau, 1861
37 227791 *Merluccius gayi* (Guichenot, 1848)
37 227792 *Merluccius hubbsi* Marini, 1933

37 228000 — **FAMILY APHYONIDAE** —
37 228014 *Aphyonus gelatinosus* Günther, 1878
37 228015 *Barathronus maculatus* Shcherbachev, 1976

37 228000 — **FAMILY BYTHITIDAE** —
37 228039 *Beaglichthys macrophthalmus* Machida, 1993
37 228040 *Brosmolus longicaudas* Machida, 1993
37 228016 *Brosmophyciops pautzkei* Schultz, 1960
37 228018 *Cataetyx niki* Cohen, 1981
37 228019 *Cataetyx* sp. [Last]
37 228020 *Dermatopsis macrodon* Ogilby, 1896
37 228021 *Dermatopsis multiradiatus* McCulloch & Waite, 1918
37 228022 *Diancistrus longifilis* Ogilby, 1899
37 228024 *Dinematichthys dasyrhynchus* Cohen & Hutchins, 1982
37 228042 *Dinematichthys megasoma* Machida, 1994
37 228043 *Dinematichthys riukiuensis* Aoyagi, 1952
37 228025 *Diplacanthopoma* sp. [in Paxton *et al.*, 1989]
37 228026 *Dipulus caecus* Waite, 1905
37 228030 *Melodichthys paxtoni* Nielsen & Cohen, 1986
37 228032 *Monothrix mizolepis* (Günther, 1867)
37 228033 *Monothrix polylepis* Ogilby, 1897
37 228046 *Ogilbia* sp. [in Gomon *et al.*, 1994]
37 228037 *Saccogaster tuberculata* (Chan, 1966)

37 228000 — **FAMILY OPHIDIIDAE** —
37 228012 *Brotula multibarbata* Temminck & Schlegel, 1847
37 228013 *Brotulotaenia crassa* Parr, 1934
37 228017 *Brotulotaenia nigra* Parr, 1933
37 228001 *Dannevigia tusca* Whitley, 1941
37 228023 *Dicrolene* sp. [in Paxton *et al.*, 1989]
37 228002 *Genypterus blacodes* (Forster, 1801)
37 228008 *Genypterus tigerinus* Klunzinger, 1872
37 228011 *Glyptophidium japonicum* Kamohara, 1936
37 228027 *Glyptophidium lucidum* Smith & Radcliffe, 1913
37 228028 *Homostolus acer* Smith & Radcliffe, 1913
37 228007 *Hoplobrotula armata* (Temminck & Schlegel, 1847)
37 228029 *Hypopleuron caninum* Smith & Radcliffe, 1913
37 228041 *Lamprogrammus shcherbachevi* Cohen & Rohr, 1993
37 228031 *Monomitopus* sp. [in Paxton *et al.*, 1989]
37 228034 *Neobythites longipes* Smith & Radcliffe, 1913
37 228045 *Neobythites macrops* Günther, 1887
37 228035 *Neobythites purus* Smith & Radcliffe, 1913
37 228006 *Ophidion muraenolepis* (Günther, 1880)
37 228044 *Parabrotula plagiophthalmus* Zugmayer, 1911
37 228036 *Pycnocraspedum squamipinne* Alcock, 1889
37 228005 *Sirembo imberbis* (Temminck & Schlegel, 1847)
37 228009 *Sirembo jerdoni* (Day, 1888)
37 228038 *Sirembo metachroma* Cohen & Robins, 1986
37 228010 *Spottobrotula amaculata* Cohen & Nielsen, 1982

— Commercial Groupings —
37 228901 *Genypterus* spp

37 229000 — **FAMILY CARAPIDAE** —
37 229006 *Carapus mourlani* (Petit, 1934)
37 229017 *Carapus sluiteri* (Weber, 1913)
37 229014 *Echiodon coheni* Williams, 1984
37 229003 *Echiodon rendhali* (Whitley, 1941)
37 229007 *Encheliophis boraborensis* (Kaup, 1856)
37 229001 *Encheliophis gracilis* (Bleeker, 1856)
37 229002 *Encheliophis homei* (Richardson, 1844)
37 229009 *Encheliophis vermicularis* Müller, 1842
37 229015 *Encheliophis vermiops* Markle & Olney, 1990
37 229008 *Eurypleuron owasianum* (Matsubara, 1953)
37 229013 *Onuxodon fowleri* (Smith, 1955)

37 229004 *Onuxodon margaritiferae* (Rendahl, 1921)
37 229010 *Onuxodon parvibrachium* (Fowler, 1927)
37 229016 *Pyramodon lindas* Markle & Olney, 1990
37 229011 *Pyramodon punctatus* (Regan, 1914)
37 229012 *Pyramodon ventralis* Smith & Radcliffe, 1913

37 231000 **— FAMILY ZOARCIDAE —**
37 231001 *Melanostigma gelatinosum* Günther, 1881

37 232000 **— FAMILY MACROURIDAE —**
37 232038 *Asthenomacrurus victoris* Sazonov & Shcherbachev, 1982
37 232030 *Bathygadus cottoides* Günther, 1878
37 232042 *Caelorinchus acanthiger* Barnard, 1925
37 232021 *Caelorinchus argentatus* Smith & Radcliffe, 1912
37 232001 *Caelorinchus australis* (Richardson, 1839)
37 232043 *Caelorinchus* cf *argus* Weber, 1913
37 232002 *Caelorinchus fasciatus* (Günther, 1878)
37 232014 *Caelorinchus innotabilis* McCulloch, 1907
37 232031 *Caelorinchus kaiyomaru* Arai & Iwamoto, 1979
37 232040 *Caelorinchus kermadecus* Jordan & Gilbert, 1904
37 232044 *Caelorinchus maculatus* Gilbert & Hubbs, 1920
37 232017 *Caelorinchus matamua* (McCann & McKnight, 1980)
37 232045 *Caelorinchus maurofasciatus* McMillan & Paulin, 1993
37 232003 *Caelorinchus mirus* McCulloch, 1926
37 232046 *Caelorinchus multispinulosus* Katayama, 1942
37 232047 *Caelorinchus parvifasciatus* McMillan & Paulin, 1993
37 232020 *Caelorinchus* sp. W5 [Iwamoto & Williams, unpubl.]
37 232048 *Cetonurichthys subinflatus* Sazonov & Shcherbachev, 1982
37 232029 *Cetonurus globiceps* (Vaillant, 1884)
37 232049 *Coryphaenoides carapinus* (Goode & Bean, 1883)
37 232050 *Coryphaenoides grahami* Iwamoto & Shcherbachev, 1991
37 232051 *Coryphaenoides mcmillani* Iwamoto & Shcherbachev, 1991
37 232052 *Coryphaenoides murrayi* Günther, 1878
37 232019 *Coryphaenoides rudis* Günther, 1878
37 232015 *Coryphaenoides serrulatus* Günther, 1878
37 232039 *Coryphaenoides* sp. W2 [Iwamoto & Williams, unpubl.]
37 232053 *Coryphaenoides striaturus* Barnard, 1925
37 232016 *Coryphaenoides subserrulatus* Makushok, 1976
37 232054 *Cyanomacrurus piriei* Dollo, 1909
37 232055 *Haplomacrourus nudirostris* Trunov, 1980
37 232056 *Hymenocephalus gracilis* Gilbert & Hubbs, 1920
37 232057 *Hymenocephalus kuronumai* Kamohara, 1938
37 232058 *Hymenocephalus longibarbis* (Günther, 1887)
37 232059 *Hymenocephalus longiceps* Smith & Radclife, 1912
37 232060 *Hyomacrourus hyostomus* (Smith & Radcliffe, 1912)
37 232037 *Idiolophorhynchus andriashevi* Sazonov, 1981
37 232061 *Kuronezumia bubonis* (Iwamoto, 1974)
37 232062 *Kuronezumia leonis* (Barnard, 1925)
37 232004 *Lepidorhynchus denticulatus* Richardson, 1846
37 232005 *Lucigadus nigromaculatus* (McCulloch, 1907)
37 232063 *Macrouroides inflaticeps* Smith & Radcliffe, 1912
37 232036 *Macrourus carinatus* (Günther, 1878)
37 232007 *Malacocephalus laevis* (Lowe, 1843)
37 232064 *Mataeocephalus adustus* Smith & Radcliffe, 1912
37 232035 *Mesobius antipodum* Hubbs & Iwamoto, 1977
37 232065 *Mesobius berryi* Hubbs & Iwamoto, 1977
37 232066 *Nezumia namatahi* McCann & McKnight, 1980
37 232067 *Nezumia propinqua* (Gilbert & Cramer, 1897)
37 232075 *Nezumia* sp. 3 [Iwamoto & Williams, unpubl.]
37 232027 *Nezumia* sp. W4 [Iwamoto & Williams, unpubl.]
37 232068 *Nezumia spinosa* (Gilbert & Hubbs, 1916)
37 232041 *Odontomacrurus murrayi* Norman, 1939
37 232069 *Sphagemacrurus pumiliceps* (Alcock, 1894)
37 232070 *Squalogadus modificatus* Gilbert & Hubbs, 1916
37 232071 *Trachonurus* cf *villosus* (Günther, 1877)
37 232028 *Trachyrinchus longirostris* (Günther, 1878)
37 232072 *Ventrifossa fasciata* (Weber, 1913)
37 232073 *Ventrifossa johnboborum* Iwamoto, 1982
37 232074 *Ventrifossa nigrodorsalis* Gilbert & Hubbs, 1920

37 233000 **— FAMILY EXOCOETIDAE —**
37 233004 *Cheilopogon arcticeps* (Günther, 1866)
37 233018 *Cheilopogon atrisignis* (Jenkins, 1904)

37 233005 *Cheilopogon cyanopterus* (Valenciennes, 1847)
37 233001 *Cheilopogon furcatus* (Mitchill, 1815)
37 233006 *Cheilopogon heterurus* (Rafinesque, 1810)
37 233007 *Cheilopogon nigricans* (Bennett, 1840)
37 233008 *Cheilopogon pinnatibarbatus* (Bennett, 1831)
37 233009 *Cheilopogon spilopterus* (Valenciennes, 1847)
37 233017 *Cheilopogon suttoni* (Whitley & Colefax, 1938)
37 233010 *Cypselurus poecilopterus* (Valenciennes, 1847)
37 233011 *Exocoetus monocirrhus* Richardson, 1846
37 233012 *Exocoetus obtusirostris* Günther, 1866
37 233013 *Exocoetus volitans* Linnaeus, 1758
37 233014 *Hirundichthys oxycephalus* (Bleeker, 1852)
37 233002 *Hirundichthys rondeletii* (Valenciennes, 1847)
37 233015 *Hirundichthys speculiger* (Valenciennes, 1847)
37 233016 *Parexocoetus brachypterus* (Richardson, 1846)
37 233003 *Parexocoetus mento* Valenciennes, 1847

37 234000 — **FAMILY HEMIRAMPHIDAE** —
37 234006 *Arrhamphus sclerolepis* Günther, 1866
37 234015 *Euleptorhamphus viridis* (van Hasselt, 1823)
37 234007 *Hemiramphus far* (Forsskål, 1775)
37 234013 *Hemiramphus robustus* Günther, 1866
37 234016 *Hyporhamphus affinis* (Günther, 1866)
37 234014 *Hyporhamphus australis* (Steindachner, 1866)
37 234008 *Hyporhamphus dussumieri* (Valenciennes, 1847)
37 234001 *Hyporhamphus melanochir* (Valenciennes, 1847)
37 234017 *Hyporhamphus neglectissimus* Parin, Collette & Shcherbachev, 1980
37 234009 *Hyporhamphus quoyi* (Valenciennes, 1847)
37 234012 *Hyporhamphus regularis* (Günther, 1866)
37 234018 *Oxyporhamphus micropterus* (Valenciennes, 1847)
37 234019 *Rhynchorhamphus georgii* (Valenciennes, 1847)
37 234010 *Zenarchopterus buffonis* (Valenciennes, 1847)
37 234020 *Zenarchopterus caudovittatus* Weber, 1908
37 234011 *Zenarchopterus dispar* (Valenciennes, 1847)
37 234021 *Zenarchopterus gilli* Smith, 1945
37 234022 *Zenarchopterus rasori* (Popta, 1912)

— Commercial Groupings —
37 234900 Hemiramphidae spp [*Arrhamphus sclerolepis* & *Hemiramphus robustus* only]

37 235000 — **FAMILY BELONIDAE** —
37 235001 *Ablennes hians* (Valenciennes, 1846)
37 235008 *Platybelone argalus* (Lesueur, 1821)
37 235007 *Strongylura incisa* (Valenciennes, 1846)
37 235009 *Strongylura krefftii* (Günther, 1866)
37 235003 *Strongylura leiura* (Bleeker, 1851)
37 235004 *Strongylura strongylura* (van Hasselt, 1823)
37 235010 *Strongylura urvillii* (Valenciennes, 1846)
37 235012 *Tylosaurus appendiculatus* (Klunzinger, 1871)
37 235011 *Tylosurus acus* (Lacépède, 1803)
37 235005 *Tylosurus crocodilus* (Péron & Lesueur, 1821)
37 235002 *Tylosurus gavialoides* (Castelnau, 1873)
37 235006 *Tylosurus punctulatus* (Günther, 1872)

37 236000 — **FAMILY SCOMBERESOCIDAE** —
37 236001 *Scomberesox saurus* (Walbaum, 1792)

37 240000 — **FAMILY CYPRINODONTIDAE** —
37 240001 *Jordanella floridae* Goode & Bean, 1879

37 244000 — **FAMILY POECILIIDAE** —
37 244001 *Gambusia affinis* (Baird & Girard, 1853)
37 244007 *Gambusia dominicensis* Regan, 1913
37 244002 *Phalloceros caudimaculatus* (Hensel, 1868)
37 244003 *Poecilia latipinna* (Lesueur, 1821)
37 244004 *Poecilia reticulata* Peters, 1859
37 244005 *Xiphophorus hellerii* Heckel, 1848
37 244006 *Xiphophorus maculatus* (Günther, 1866)

37 245000 — **FAMILY PSEUDOMUGILIDAE** —
37 245002 *Cairnsichthys rhombosomoides* (Nichols & Raven, 1928)
37 245003 *Iriatherina werneri* Meinken, 1974
37 245012 *Melanotaenia australis* (Castelnau, 1875)
37 245004 *Melanotaenia duboulayi* (Castelnau, 1878)
37 245005 *Melanotaenia eachamensis* Allen & Cross, 1982
37 245006 *Melanotaenia exquisita* Allen, 1978
37 245007 *Melanotaenia fluviatilis* (Castelnau, 1878)
37 245008 *Melanotaenia gracilis* Allen, 1978
37 245013 *Melanotaenia inornata* (Castelnau, 1875)
37 245009 *Melanotaenia maccullochi* Ogilby, 1915
37 245010 *Melanotaenia nigrans* (Richardson, 1843)
37 245011 *Melanotaenia pygmaea* Allen, 1978
37 245014 *Melanotaenia splendida* (Peters, 1866)
37 245015 *Melanotaenia tatei* (Zietz, 1896)
37 245016 *Melanotaenia trifasciata* (Rendahl, 1922)
37 245017 *Pseudomugil cyanodorsalis* Allen & Sarti, 1983
37 245001 *Pseudomugil gertrudae* Weber, 1911
37 245018 *Pseudomugil inconspicuus* Roberts, 1978
37 245019 *Pseudomugil mellis* Allen & Ivantsoff, 1982
37 245020 *Pseudomugil signifer* Kner, 1867
37 245021 *Pseudomugil tenellus* Taylor, 1964
37 245022 *Rhadinocentrus ornatus* Regan, 1914

37 246000 — **FAMILY ATHERINIDAE** —
37 246004 *Atherinason hepsetoides* (Richardson, 1843)
37 246008 *Atherinomorus capricornensis* (Woodland, 1961)
37 246006 *Atherinomorus duodecimalis* (Valenciennes, 1835)
37 246005 *Atherinomorus eendrachtensis* (Quoy & Gaimard, 1824)
37 246009 *Atherinomorus lacunosus* (Forster, 1801)
37 246007 *Atherinomorus ogilbyi* (Whitley, 1930)
37 246010 *Atherinosoma elongata* (Klunzinger, 1880)
37 246001 *Atherinosoma microstoma* (Günther, 1861)
37 246012 *Atherion elymus* Jordan & Starks, 1901
37 246013 *Atherion maccullochi* Jordan & Hubbs, 1919
37 246014 *Craterocephalus amniculus* Crowley & Ivantsoff, 1990
37 246015 *Craterocephalus capreoli* Rendahl, 1922
37 246016 *Craterocephalus centralis* Crowley & Ivantsoff, 1990
37 246017 *Craterocephalus cuneiceps* Whitley, 1944
37 246018 *Craterocephalus dalhousiensis* Ivantsoff & Glover, 1974
37 246019 *Craterocephalus eyresii* (Steindachner, 1884)
37 246031 *Craterocephalus gloveri* Crowley & Ivantsoff, 1990
37 246021 *Craterocephalus helenae* Ivantsoff, Crowley & Allen, 1987
37 246022 *Craterocephalus honoriae* (Ogilby, 1912)
37 246023 *Craterocephalus lentiginosus* Ivantsoff, Crowley & Allen, 1987
37 246024 *Craterocephalus marianae* Ivantsoff, Crowley & Allen, 1987
37 246025 *Craterocephalus marjoriae* Whitley, 1948
37 246026 *Craterocephalus mugiloides* (McCulloch, 1912)
37 246027 *Craterocephalus pauciradiatus* (Günther, 1861)
37 246028 *Craterocephalus fulvus* Ivantsoff, Crowley & Allen, 1987
37 246029 *Craterocephalus stercusmuscarum* (Günther, 1867)
37 246030 *Craterocephalus stramineus* (Whitley, 1950)
37 246032 *Dentatherina merceri* Patten & Ivantsoff, 1983
37 246033 *Hypoatherina barnesi* Schultz, 1953
37 246039 *Hypoatherina ovalaua* (Herre, 1935)
37 246034 *Hypoatherina temminckii* (Bleeker, 1853)
37 246035 *Hypoatherina tropicalis* (Whitley, 1948)
37 246036 *Kestratherina brevirostris* Pavlov, Ivantsoff, Last & Crowley, 1988
37 246003 *Kestratherina esox* (Klunzinger, 1872)
37 246002 *Leptatherina presbyteroides* (Richardson, 1843)
37 246011 *Leptatherina wallacei* Prince, Ivantsoff, & Poter 1982
37 246037 *Scaturiginichthys vermeilipinnis* Ivantsoff, Unmack, Saeed & Crowley, 1991
37 246038 *Stenatherina panatela* (Jordan & Richardson, 1908)

37 247000 — **FAMILY ISONIDAE** —
37 247001 *Iso rhothophilus* (Ogilby, 1895)

37 251000 — **FAMILY MELAMPHAIDAE** —
37 251002 *Melamphaes longivelis* Parr, 1933
37 251003 *Melamphaes suborbitalis* (Gill, 1883)
37 251004 *Poromitra crassiceps* (Günther, 1878)
37 251001 *Scopeloberyx microlepis* (Norman, 1937)
37 251005 *Scopelogadus beanii* (Günther, 1887)

37 251006 *Scopelogadus mizolepis* (Günther, 1878)
37 251007 *Sio nordenskjoeldii* (Lönnberg, 1905)

37 253000 — **FAMILY POLYMIXIIDAE** —
37 253001 *Polymixia berndti* Gilbert, 1905
37 253002 *Polymixia busakhini* Kotlyar, 1993

37 254000 — **FAMILY DIRETMIDAE** —
37 254001 *Diretmichthys parini* (Post & Quero, 1981)
37 254002 *Diretmus argenteus* Johnson, 1864

37 255000 — **FAMILY TRACHICHTHYIDAE** —
37 255011 *Aulotrachichthys novaezelandicus* (Kotlyar, 1980)
37 255012 *Aulotrachichthys pulsator* Gomon & Kuiter, 1987
37 255004 *Gephyroberyx darwinii* (Johnson, 1866)
37 255009 *Hoplostethus atlanticus* Collett, 1889
37 255005 *Hoplostethus gigas* McCulloch, 1914
37 255001 *Hoplostethus intermedius* (Hector, 1875)
37 255002 *Hoplostethus latus* McCulloch, 1914
37 255013 *Hoplostethus melanopus* (Weber, 1913)
37 255014 *Hoplostethus shubnikovi* Kotlyar, 1980
37 255006 *Hoplostethus* sp. [in Sainsbury *et al.*, 1985]
37 255017 *Optivus elongatus* (Günther, 1859)
37 255007 *Optivus* sp. 1 [in Gomon *et al.*, 1994]
37 255016 *Optivus* sp. 2 [in Gomon *et al.*, 1994]
37 255003 *Paratrachichthys* sp. 1 [in Gomon *et al.*, 1994]
37 255010 *Sorosichthys ananassa* Whitley, 1945
37 255015 *Trachichthys australis* Shaw, 1799

37 257000 — **FAMILY ANOPLOGASTERIDAE** —
37 257001 *Anoplogaster cornuta* (Valenciennes, 1833)

37 258000 — **FAMILY BERYCIDAE** —
37 258001 *Beryx decadactylus* Cuvier, 1829
37 258002 *Beryx splendens* Lowe, 1834
37 258003 *Centroberyx affinis* (Günther, 1859)
37 258006 *Centroberyx australis* Shimizu & Hutchins, 1987
37 258004 *Centroberyx gerrardi* (Günther, 1887)
37 258005 *Centroberyx lineatus* (Cuvier, 1829)
37 258007 *Centroberyx* sp. [in Hutchins & Swainston, 1986]

37 259000 — **FAMILY MONOCENTRIDIDAE** —
37 259001 *Cleidopus gloriamaris* De Vis, 1882
37 259002 *Monocentris japonica* (Houttuyn, 1782)

37 260000 — **FAMILY ANOMALOPIDAE** —
37 260001 *Anomalops katoptron* (Bleeker, 1856)
37 260002 *Photoblepharon paplebratus* (Boddaert, 1781)

37 261000 — **FAMILY HOLOCENTRIDAE** —
37 261008 *Myripristis adusta* Bleeker, 1853
37 261007 *Myripristis amaena* (Castelnau, 1873)
37 261006 *Myripristis berndti* Jordan & Evermann, 1903
37 261004 *Myripristis botche* Cuvier, 1829
37 261009 *Myripristis chryseres* Jordan & Evermann, 1903
37 261010 *Myripristis hexagona* (Lacépède, 1802)
37 261011 *Myripristis kuntee* Valenciennes, 1831
37 261002 *Myripristis murdjan* (Forsskål, 1775)
37 261013 *Myripristis pralinia* Cuvier, 1829
37 261014 *Myripristis violacea* Bleeker, 1851
37 261015 *Myripristis vittata* Valenciennes, 1831
37 261016 *Neoniphon argenteus* (Valenciennes, 1831)
37 261017 *Neoniphon aurolineatus* (Liénard, 1839)
37 261018 *Neoniphon opercularis* (Valenciennes, 1831)
37 261019 *Neoniphon sammara* (Forsskål, 1775)
37 261003 *Ostichthys japonicus* (Cuvier, 1829)
37 261005 *Ostichthys kaianus* (Günther, 1880)
37 261020 *Plectrypops lima* (Valenciennes, 1831)
37 261021 *Pristilepis oligolepis* (Whitley, 1941)
37 261022 *Sargocentron caudimaculatum* (Rüppell, 1838)
37 261033 *Sargocentron cornutum* (Bleeker, 1853)

37 261023 *Sargocentron diadema* (Lacépède, 1802)
37 261024 *Sargocentron ittodai* (Jordan & Fowler, 1903)
37 261025 *Sargocentron lepros* (Allen & Cross, 1983)
37 261026 *Sargocentron melanospilos* (Bleeker, 1858)
37 261027 *Sargocentron microstoma* (Günther, 1859)
37 261034 *Sargocentron praslin* (Lacépède, 1802)
37 261028 *Sargocentron punctatissimum* (Cuvier, 1829)
37 261001 *Sargocentron rubrum* (Forsskål, 1775)
37 261029 *Sargocentron spiniferum* (Forsskål, 1775)
37 261030 *Sargocentron tiere* (Cuvier, 1829)
37 261031 *Sargocentron tiereoides* (Bleeker, 1853)
37 261032 *Sargocentron violaceum* (Bleeker, 1853)

37 262000 — **FAMILY PARAZENIDAE** —
37 262001 *Parazen pacificus* Kamohara, 1935

37 263000 — **FAMILY ZENIONTIDAE** —
37 263003 *Macrurocyttus acanthopodus* Fowler, 1933
37 263001 *Zenion japonicum* Kamohara, 1934
37 263002 *Zenion* sp. [in Paxton *et al.*, 1989]

37 264000 — **FAMILY ZEIDAE** —
37 264011 *Cyttomimus affinis* Weber, 1913
37 264009 *Cyttopsis cypho* (Fowler, 1934)
37 264010 *Cyttopsis roseus* (Lowe, 1843)
37 264002 *Cyttus australis* (Richardson, 1843)
37 264005 *Cyttus novaezealandiae* (Arthur, 1885)
37 264001 *Cyttus traversi* Hutton, 1872
37 264003 *Zenopsis nebulosus* (Temminck & Schlegel, 1845)
37 264012 *Zenopsis* sp. [Bray unpubl.]
37 264004 *Zeus faber* Linnaeus, 1758

37 265000 — **FAMILY GRAMMICOLEPIDIDAE** —
37 265001 *Grammicolepis brachiusculus* Poey, 1873
37 265003 *Xenolepidichthys dalgleishi* Gilchrist, 1922

37 266000 — **FAMILY OREOSOMATIDAE** —
37 266005 *Allocyttus niger* James, Inada & Nakamura 1988
37 266004 *Allocyttus verrucosus* (Gilchrist, 1906)
37 266001 *Neocyttus rhomboidalis* Gilchrist, 1906
37 266006 *Neocyttus* sp. A [in ISR Munro collection]
37 266002 *Oreosoma atlanticum* Cuvier, 1829
37 266003 *Pseudocyttus maculatus* Gilchrist, 1906

— Commercial Groupings —
37 266901 *Allocyttus* spp [*A. niger* & *A. verrucosus* only]

37 267000 — **FAMILY CAPROIDAE** —
37 267004 *Antigonia capros* Lowe, 1843
37 267003 *Antigonia malayana* Weber, 1913
37 267001 *Antigonia rhomboidea* McCulloch, 1915
37 267005 *Antigonia rubescens* (Günther, 1860)
37 267002 *Antigonia rubicunda* Ogilby, 1910

37 268000 — **FAMILY LAMPRIDAE** —
37 268001 *Lampris guttatus* (Brünnich, 1788)
37 268002 *Lampris immaculatus* Gilchrist, 1904

— Commercial Groupings —
37 268900 *Lampris* spp [*L. guttatus* & *L. immaculatus* only]

37 269000 — **FAMILY VELIFERIDAE** —
37 269001 *Metavelifer multiradiatus* (Regan, 1907)
37 269002 *Velifer hypselopterus* Bleeker, 1879

37 270000 — **FAMILY LOPHOTIDAE** —
37 270002 *Eumecichthys fiski* (Günther, 1890)
37 270001 *Lophotus lacepede* Giorna, 1809

37 271000 — **FAMILY TRACHIPTERIDAE** —
37 271002 *Desmodema polystictum* (Ogilby, 1898)
37 271001 *Trachipterus jacksonensis* (Ramsay, 1881)
37 271003 *Zu cristatus* (Bonelli, 1820)

37 272000 — **FAMILY REGALECIDAE** —
37 272003 *Agrostichthys parkeri* (Benham, 1904)
37 272002 *Regalecus glesne* Ascanius, 1772

37 277000 — **FAMILY AULOSTOMIDAE** —
37 277001 *Aulostomus chinensis* (Linnaeus, 1766)

37 278000 — **FAMILY FISTULARIIDAE** —
37 278001 *Fistularia commersonii* Rüppell, 1838
37 278002 *Fistularia petimba* Lacépède, 1803

37 279000 — **FAMILY MACRORAMPHOSIDAE** —
37 279001 *Centriscops humerosus* (Richardson, 1846)
37 279006 *Macroramphosus elevatus* Waite, 1899
37 279007 *Macroramphosus gracilis* (Lowe, 1839)
37 279002 *Macroramphosus scolopax* (Linnaeus, 1758)
37 279003 *Notopogon lilliei* Regan, 1914
37 279005 *Notopogon xenosoma* Regan, 1914

37 280000 — **FAMILY CENTRISCIDAE** —
37 280003 *Aeoliscus strigatus* (Günther, 1861)
37 280002 *Centriscus cristatus* (De Vis, 1885)
37 280001 *Centriscus scutatus* Linnaeus, 1758

37 281000 — **FAMILY SOLENOSTOMIDAE** —
37 281001 *Solenostomus cyanopterus* Bleeker, 1854
37 281002 *Solenostomus paradoxus* (Pallas, 1770)

37 282000 — **FAMILY SYNGNATHIDAE** —
37 282034 *Acentronura australe* Waite & Hale, 1921
37 282036 *Acentronura larsonae* Dawson, 1984
37 282035 *Acentronura tentaculata* Günther, 1870
37 282104 *Bhanotia fasciolata* (Duméril, 1870)
37 282037 *Bulbonaricus brauni* (Dawson & Allen, 1978)
37 282038 *Bulbonaricus davaoensis* (Herald, 1953)
37 282039 *Campichthys galei* (Duncker, 1909)
37 282040 *Campichthys tricarinatus* Dawson, 1977
37 282041 *Campichthys tryoni* (Ogilby, 1890)
37 282042 *Choeroichthys brachysoma* (Bleeker, 1855)
37 282043 *Choeroichthys cinctus* Dawson, 1976
37 282044 *Choeroichthys latispinosus* Dawson, 1978
37 282045 *Choeroichthys sculptus* (Günther, 1870)
37 282046 *Choeroichthys suillus* Whitley, 1951
37 282047 *Corythoichthys amplexus* Dawson & Randall, 1975
37 282032 *Corythoichthys flavofasciatus* (Rüppell, 1838)
37 282048 *Corythoichthys haematopterus* (Bleeker, 1851)
37 282049 *Corythoichthys intestinalis* (Ramsay, 1881)
37 282050 *Corythoichthys ocellatus* Herald, 1953
37 282051 *Corythoichthys paxtoni* Dawson, 1977
37 282052 *Corythoichthys schultzi* Herald, 1953
37 282053 *Cosmocampus banneri* (Herald & Randall, 1972)
37 282054 *Cosmocampus darrosanus* (Dawson & Randall, 1975)
37 282055 *Cosmocampus howensis* (Whitley, 1948)
37 282056 *Cosmocampus maxweberi* (Whitley, 1933)
37 282057 *Doryrhamphus dactyliophorus* (Bleeker, 1853)
37 282058 *Doryrhamphus excisus* Kaup, 1856
37 282059 *Doryrhamphus janssi* (Herald & Randall, 1972)
37 282060 *Doryrhamphus negrosensis* Herre, 1934
37 282061 *Festucalex cinctus* (Ramsay, 1882)
37 282062 *Festucalex gibbsi* Dawson, 1977
37 282063 *Festucalex scalaris* (Günther, 1870)
37 282064 *Filicampus tigris* (Castelnau, 1879)
37 282065 *Halicampus brocki* (Herald, 1953)
37 282066 *Halicampus dunckeri* (Chabanaud, 1929)
37 282030 *Halicampus grayi* Kaup, 1856
37 282067 *Halicampus macrorhynchus* Bamber, 1915
37 282068 *Halicampus mataafae* (Jordan & Seale, 1906)
37 282069 *Halicampus nitidus* (Günther, 1873)

37 282070 *Halicampus spinirostris* (Dawson & Allen, 1981)
37 282007 *Haliichthys taeniophorus* Gray, 1859
37 282071 *Heraldia nocturna* Paxton, 1975
37 282072 *Hippichthys cyanospilos* (Bleeker, 1854)
37 282073 *Hippichthys heptagonus* Bleeker, 1849
37 282074 *Hippichthys parvicarinatus* (Dawson, 1978)
37 282075 *Hippichthys penicillus* (Cantor, 1849)
37 282076 *Hippichthys spicifer* (Rüppell, 1838)
37 282010 *Hippocampus abdominalis* Lesson, 1827
37 282077 *Hippocampus angustus* Günther, 1870
37 282026 *Hippocampus breviceps* Peters, 1869
37 282005 *Hippocampus histrix* Kaup, 1856
37 282033 *Hippocampus kuda* Bleeker, 1852
37 282078 *Hippocampus planifrons* Peters, 1877
37 282079 *Hippocampus spinosissimus* Weber, 1913
37 282027 *Hippocampus whitei* Bleeker, 1855
37 282080 *Hippocampus zebra* Whitley, 1964
37 282011 *Histiogamphelus briggsii* McCulloch, 1914
37 282081 *Histiogamphelus cristatus* (Macleay, 1881)
37 282082 *Hypselognathus horridus* Dawson & Glover, 1982
37 282012 *Hypselognathus rostratus* (Waite & Hale, 1921)
37 282014 *Kaupus costatus* (Waite & Hale, 1921)
37 282083 *Kimblaeus bassensis* Dawson, 1980
37 282013 *Leptoichthys fistularius* Kaup, 1853
37 282016 *Lissocampus caudalis* Waite & Hale, 1921
37 282084 *Lissocampus fatiloquus* (Whitley, 1943)
37 282009 *Lissocampus runa* Whitley, 1931
37 282085 *Maroubra perserrata* Whitley, 1948
37 282086 *Micrognathus andersonii* (Bleeker, 1858)
37 282087 *Micrognathus brevirostris* (Rüppell, 1838)
37 282088 *Micrognathus micronotopterus* (Fowler, 1938)
37 282089 *Micrognathus natans* Dawson, 1982
37 282090 *Microphis brachyurus* (Bleeker, 1853)
37 282091 *Microphis manadensis* (Bleeker, 1856)
37 282092 *Mitotichthys meraculus* (Whitley, 1948)
37 282022 *Mitotichthys mollisoni* (Scott, 1955)
37 282015 *Mitotichthys semistriatus* (Kaup, 1856)
37 282025 *Mitotichthys tuckeri* (Scott, 1942)
37 282093 *Nannocampus pictus* (Duncker, 1915)
37 282094 *Nannocampus subosseus* Günther, 1870
37 282095 *Notiocampus ruber* (Ramsay & Ogilby, 1886)
37 282096 *Phoxocampus diacanthus* (Schultz, 1943)
37 282001 *Phycodurus eques* (Günther, 1865)
37 282002 *Phyllopteryx taeniolatus* (Lacépède, 1804)
37 282021 *Pugnaso curtirostris* (Castelnau, 1872)
37 282097 *Siokunichthys breviceps* Smith, 1963
37 282098 *Solegnathus dunckeri* Whitley, 1927
37 282099 *Solegnathus hardwickii* (Gray, 1830)
37 282003 *Solegnathus lettiensis* (Bleeker, 1860)
37 282004 *Solegnathus robustus* McCulloch, 1911
37 282029 *Solegnathus spinosissimus* (Günther, 1870)
37 282017 *Stigmatopora argus* (Richardson, 1840)
37 282018 *Stigmatopora nigra* Kaup, 1856
37 282019 *Stipecampus cristatus* (McCulloch & Waite, 1918)
37 282100 *Syngnathoides biaculeatus* (Bloch, 1785)
37 282006 *Trachyrhamphus bicoarctatus* (Bleeker, 1857)
37 282101 *Trachyrhamphus longirostris* Kaup, 1856
37 282008 *Urocampus carinirostris* Castelnau, 1872
37 282102 *Vanacampus margaritifer* (Peters, 1869)
37 282023 *Vanacampus phillipi* (Lucas, 1891)
37 282024 *Vanacampus poecilolaemus* (Peters, 1869)
37 282103 *Vanacampus vercoi* (Waite & Hale, 1921)

37 285000 — **FAMILY SYNBRANCHIDAE** —
37 285001 *Monopterus albus* (Zuiew, 1793)
37 285002 *Ophisternon bengalense* McClelland, 1844
37 285003 *Ophisternon candidum* (Mees, 1962)
37 285004 *Ophisternon gutturale* (Richardson, 1845)

37 287000 — **FAMILY SCORPAENIDAE** —
37 287031 *Ablabys taenianotus* (Cuvier, 1829)
37 287033 *Apistops caloundra* (De Vis, 1886)
37 287011 *Apistus carinatus* (Bloch & Schneider, 1801)
37 287101 *Brachypterois serrulatus* (Richardson, 1846)

37 287048 *Centropogon australis* (White, 1790)
37 287094 *Centropogon latifrons* Mees, 1962
37 287102 *Centropogon marmoratus* Günther, 1862
37 287050 *Cheroscorpaena tridactyla* Mees, 1964
37 287014 *Cottapistus cottoides* (Cuvier, 1829)
37 287015 *Cottapistus praepositus* (Ogilby, 1903)
37 287051 *Cottapistus scorpio* (Ogilby, 1910)
37 287052 *Dampierosa daruma* Whitley, 1932
37 287095 *Dendrochirus biocellatus* (Fowler, 1935)
37 287010 *Dendrochirus brachypterus* (Cuvier, 1829)
37 287026 *Dendrochirus zebra* (Cuvier, 1829)
37 287053 *Ectreposebastes imus* Garman, 1899
37 287022 *Erosa erosa* (Langsdorf, 1829)
37 287023 *Glyptauchen panduratus* (Richardson, 1850)
37 287018 *Gymnapistes marmoratus* (Cuvier, 1829)
37 287093 *Helicolenus barathri* (Hector, 1875)
37 287001 *Helicolenus percoides* (Richardson, 1842)
37 287055 *Inimicus caledonicus* (Sauvage, 1878)
37 287028 *Inimicus didactylus* (Pallas, 1769)
37 287020 *Inimicus sinensis* (Valenciennes, 1833)
37 287043 *Lioscorpius longiceps* Günther, 1880
37 287056 *Maxillicosta lopholepis* Eschmeyer & Poss, 1976
37 287007 *Maxillicosta scabriceps* Whitley, 1935
37 287045 *Maxillicosta whitleyi* Eschmeyer & Poss, 1976
37 287029 *Minous coccineus* Alcock, 1890
37 287024 *Minous trachycephalus* (Bleeker, 1854)
37 287021 *Minous versicolor* Ogilby, 1910
37 287034 *Neocentropogon aeglefinis* (Weber, 1913)
37 287035 *Neocentropogon* sp. [in Sainsbury *et al.*, 1985]
37 287039 *Neomerinthe amplisquamiceps* (Fowler, 1938)
37 287057 *Neomerinthe procurva* Chen, 1981
37 287004 *Neosebastes bougainvillii* (Cuvier, 1829)
37 287009 *Neosebastes entaxis* Jordan & Starks, 1904
37 287019 *Neosebastes incisipinnis* Ogilby, 1910
37 287002 *Neosebastes nigropunctatus* McCulloch, 1915
37 287003 *Neosebastes pandus* (Richardson, 1842)
37 287005 *Neosebastes scorpaenoides* Guichenot, 1867
37 287006 *Neosebastes thetidis* (Waite, 1899)
37 287058 *Notesthes robusta* (Günther, 1860)
37 287059 *Ocosia* sp. [Last]
37 287016 *Paracentropogon longispinus* (Cuvier, 1829)
37 287060 *Paracentropogon vespa* Ogilby, 1910
37 287061 *Parascorpaena aurita* Rüppell, 1838
37 287096 *Parascorpaena mcadamsi* (Fowler, 1938)
37 287062 *Parascorpaena mossambica* (Peters, 1855)
37 287063 *Pteroidichthys godfreyi* (Whitley, 1954)
37 287064 *Pterois antennata* (Bloch, 1787)
37 287027 *Pterois mombasae* (Smith, 1957)
37 287097 *Pterois radiata* Cuvier, 1829
37 287012 *Pterois russelli* Bennett, 1831
37 287040 *Pterois volitans* (Linnaeus, 1758)
37 287065 *Rhinopias aphanes* Eschmeyer, 1973
37 287036 *Richardsonichthys leucogaster* (Richardson, 1848)
37 287066 *Scorpaena cardinalis* Richardson, 1842
37 287044 *Scorpaena* cf *oglinus* (Smith, 1946)
37 287098 *Scorpaena cookii* Günther, 1875
37 287067 *Scorpaena grandisquamis* Ogilby, 1910
37 287068 *Scorpaena izensis* Jordan & Starks, 1904
37 287069 *Scorpaena maculipinnis* (Smith, 1957)
37 287070 *Scorpaena moultoni* Whitley, 1961
37 287041 *Scorpaena neglecta* Temminck & Schlegel, 1844
37 287008 *Scorpaena papillosa* (Bloch & Schneider, 1801)
37 287071 *Scorpaena picta* (Kuhl & van Hasselt, 1829)
37 287092 *Scorpaena* sp. [Last]
37 287072 *Scorpaena sumptuosa* Castelnau, 1875
37 287073 *Scorpaenodes albaiensis* (Evermann & Seale, 1907)
37 287074 *Scorpaenodes guamensis* Quoy & Gaimard, 1824
37 287075 *Scorpaenodes hirsutus* (Smith, 1957)
37 287099 *Scorpaenodes kelloggi* (Jenkins, 1903)
37 287076 *Scorpaenodes littoralis* (Tanaka, 1917)
37 287077 *Scorpaenodes parvipinnis* (Garrett, 1863)
37 287078 *Scorpaenodes scaber* (Ramsay & Ogilby, 1886)
37 287032 *Scorpaenodes smithi* Eschmeyer & Rama-Rao, 1972
37 287079 *Scorpaenodes steenei* Allen, 1977
37 287080 *Scorpaenodes varipinnis* Smith, 1957
37 287081 *Scorpaenopsis diabolus* Cuvier, 1829
37 287082 *Scorpaenopsis furneauxi* Whitley, 1959
37 287030 *Scorpaenopsis gibbosa* (Bloch & Schneider, 1801)
37 287083 *Scorpaenopsis macrochir* Ogilby, 1910

37 287037 *Scorpaenopsis neglecta* Heckel, 1837
37 287084 *Scorpaenopsis oxycephalus* (Bleeker, 1849)
37 287085 *Scorpaenopsis palmeri* Ogilby, 1910
37 287086 *Scorpaenopsis venosa* (Cuvier, 1829)
37 287100 *Sebastapistes albobrunnea* (Günther, 1874)
37 287087 *Sebastapistes cyanostigma* (Bleeker, 1856)
37 287088 *Sebastapistes strongia* (Cuvier, 1829)
37 287047 *Setarches guentheri* Johnson, 1862
37 287013 *Setarches longimanus* (Alcock, 1894)
37 287049 *Synanceia horrida* (Linnaeus, 1766)
37 287089 *Synanceia verrucosa* Bloch & Schneider, 1801
37 287090 *Taenianotus triacanthus* Lacépède, 1802
37 287091 *Tetraroge darnleyensis* Alleyne & Macleay, 1877
37 287046 *Trachyscorpia capensis* (Gilchrist & von Bonde, 1924)
37 287103 *Trachyscorpia* sp. [in ISR Munro collection]

— Commercial Groupings —

37 287901 *Helicolenus* spp [*H. barathri* & *H. percoides* only]

— Imported Species —

37 287790 *Sebastes* species [*S. marinus* (Linnaeus, 1758), *S. mentella* Travin, 1951 and *S. viviparus* Krøyer, 1845 only]

37 288000 **— FAMILY TRIGLIDAE —**
37 288001 *Chelidonichthys kumu* (Lesson, 1826)
37 288013 *Gargariscus prionocephalus* (Duméril, 1868)
37 288032 *Lepidotrigla argus* Ogilby, 1910
37 288026 *Lepidotrigla calodactyla* Ogilby, 1910
37 288017 *Lepidotrigla* cf *bispinosa* [Gomon, pers comm]
37 288020 *Lepidotrigla* cf *grandis* (A) [Gomon, pers comm]
37 288034 *Lepidotrigla* cf *grandis* (B) [Gomon, pers comm]
37 288010 *Lepidotrigla* cf *japonica* (Bleeker, 1857)
37 288035 *Lepidotrigla* cf *riggsi* [Gomon, pers comm]
37 288033 *Lepidotrigla grandis* Ogilby, 1910
37 288007 *Lepidotrigla modesta* Waite, 1899
37 288008 *Lepidotrigla mulhalli* Macleay, 1884
37 288002 *Lepidotrigla papilio* (Cuvier, 1829)
37 288027 *Lepidotrigla punctipectoralis* Fowler, 1938
37 288016 *Lepidotrigla russelli* del Cerro & Lloris, 1995
37 288037 *Lepidotrigla* sp. [Gomon, pers comm]
37 288038 *Lepidotrigla* sp. [Gomon, pers comm]
37 288015 *Lepidotrigla* sp. 2 [in Sainsbury *et al.*, 1985]
37 288028 *Lepidotrigla spinosa* Gomon, 1987
37 288029 *Lepidotrigla umbrosa* Ogilby, 1910
37 288003 *Lepidotrigla vanessa* (Richardson, 1839)
37 288025 *Parapterygotrigla* sp. 1 [in Gloerfelt-Tarp & Kailola, 1984]
37 288039 *Parapterygotrigla* sp. 2 [in Gloerfelt-Tarp & Kailola, 1984]
37 288022 *Peristedion liorhynchus* (Günther, 1872)
37 288005 *Pterygotrigla andertoni* Waite, 1910
37 288009 *Pterygotrigla hemisticta* (Temminck & Schlegel, 1844)
37 288014 *Pterygotrigla leptacanthus* (Günther, 1880)
37 288006 *Pterygotrigla polyommata* (Richardson, 1839)
37 288030 *Satyrichthys lingi* (Whitley, 1933)
37 288012 *Satyrichthys moluccense* (Bleeker, 1850)
37 288031 *Satyrichthys orientale* (Fowler, 1938)
37 288023 *Satyrichthys rieffeli* (Kaup, 1859)
37 288019 *Satyrichthys welchi* (Herre, 1925)

— Commercial Groupings —

37 288901 *Lepidotrigla* spp

37 289000 **— FAMILY CARACANTHIDAE —**
37 289001 *Caracanthus maculatus* (Gray, 1831)
37 289002 *Caracanthus unipinnis* (Gray, 1831)

37 290000 **— FAMILY APLOACTINIDAE —**
37 290004 *Adventor elongatus* (Whitley, 1952)
37 290005 *Aploactis aspera* (Richardson, 1844)
37 290001 *Aploactisoma milesii* (Richardson, 1850)
37 290006 *Bathyaploactis curtisensis* Whitley, 1933
37 290002 *Erisphex aniarus* (Thomson, 1967)
37 290007 *Kanekonia queenslandica* Whitley, 1952
37 290008 *Karumba ornatissimus* (Whitley, 1933)

37 290013 *Matsubarichthys inusitatus* Poss & Johnson, 1991
37 290009 *Neoaploactis tridorsalis* Eschmeyer & Allen, 1978
37 290010 *Paraploactis intonsa* Poss & Eschmeyer, 1978
37 290003 *Paraploactis pulvinus* Poss & Eschmeyer, 1978
37 290011 *Paraploactis trachyderma* Bleeker, 1865
37 290012 *Peristrominous dolosus* Whitley, 1952

37 292000 — **FAMILY GNATHANACANTHIDAE** —
37 292002 *Gnathanacanthus goetzeei* Bleeker, 1855

37 292000 — **FAMILY PATAECIDAE** —
37 292004 *Aetapcus maculatus* (Günther, 1861)
37 292005 *Neopataecus waterhousii* (Castelnau, 1872)
37 292001 *Pataecus fronto* Richardson, 1844

37 296000 — **FAMILY PLATYCEPHALIDAE** —
37 296026 *Bembras japonicus* Cuvier, 1829
37 296018 *Cociella hutchinsi* Knapp, 1996
37 296013 *Elates ransonnetii* (Steindachner, 1877)
37 296010 *Inegocia harrisii* (McCulloch, 1914)
37 296029 *Inegocia japonica* (Tilesius, 1812)
37 296005 *Leviprora inops* (Jenyns, 1840)
37 296035 *Neoplatycephalus aurimaculatus* (Knapp, 1987)
37 296002 *Neoplatycephalus conatus* (Waite & McCulloch, 1915)
37 296001 *Neoplatycephalus richardsoni* (Castelnau, 1872)
37 296025 *Onigocia macrolepis* (Bleeker, 1854)
37 296027 *Onigocia oligolepis* (Regan, 1908)
37 296022 *Onigocia spinosa* (Temminck & Schlegel, 1844)
37 296031 *Papilloculiceps bosschei* (Bleeker, 1860)
37 296023 *Papilloculiceps nematophthalmus* (Günther, 1860)
37 296021 *Platycephalus arenarius* Ramsay & Ogilby, 1886
37 296003 *Platycephalus bassensis* Cuvier, 1829
37 296007 *Platycephalus caeruleopunctatus* McCulloch, 1922
37 296039 *Platycephalus chauliodous* Knapp, 1991
37 296020 *Platycephalus endrachtensis* Quoy & Gaimard, 1825
37 296004 *Platycephalus fuscus* Cuvier, 1829
37 296033 *Platycephalus indicus* (Linnaeus, 1758)
37 296006 *Platycephalus laevigatus* Cuvier, 1829
37 296036 *Platycephalus longispinis* Macleay, 1884
37 296038 *Platycephalus marmoratus* Stead, 1908
37 296037 *Platycephalus speculator* Klunzinger, 1872
37 296011 *Ratabulus diversidens* (McCulloch, 1914)
37 296024 *Rogadius asper* (Cuvier, 1829)
37 296008 *Rogadius patriciae* Knapp, 1987
37 296040 *Rogadius serratus* (Cuvier, 1829)
37 296030 *Sorsogona tuberculata* (Cuvier, 1829)
37 296041 *Suggrundus jugosus* (McCulloch, 1914)
37 296012 *Suggrundus macracanthus* (Bleeker, 1869)
37 296019 *Suggrundus rodericensis* (Cuvier, 1829)
37 296042 *Suggrundus staigeri* (Castelnau, 1875)
37 296043 *Thysanophrys arenicola* Schultz, 1966
37 296044 *Thysanophrys celebica* (Bleeker, 1854)
37 296034 *Thysanophrys chiltonae* Schultz, 1966
37 296045 *Thysanophrys cirronasus* (Richardson, 1848)
37 296046 *Thysanophrys otaitensis* (Parkinson, 1829)
37 296047 *Thysanophrys papillolabium* Schultz, 1966

— Commercial Groupings —
37 296901 *Platycephalus* spp [*P. bassensis* & *P. caeruleopunctatus* only]

37 297000 — **FAMILY HOPLICHTHYIDAE** —
37 297003 *Hoplichthys* cf *acanthopleurus* Regan, 1908
37 297002 *Hoplichthys citrinus* Gilbert, 1905
37 297005 *Hoplichthys filamentosus* Matsubara & Ochiai, 1950
37 297001 *Hoplichthys haswelli* McCulloch, 1907
37 297006 *Hoplichthys ogilbyi* McCulloch, 1914

37 298000 — **FAMILY CONGIOPODIDAE** —
37 298001 *Congiopodus leucopaecilus* (Richardson, 1846)
37 298002 *Perryena leucometopon* (Waite, 1922)

37 300000 — **FAMILY COTTIDAE** —
37 300002 *Antipodocottus elegans* Fricke & Brunken, 1984

37 305000 — **FAMILY PSYCHROLUTIDAE** —
37 305003 *Ebinania* sp. [Last]
37 305001 *Psychrolutes marcidus* (McCulloch, 1926)
37 305002 *Psychrolutes occidentalis* Fricke, 1990
37 305004 *Psychrolutes* sp. [Last]

37 307000 — **FAMILY CYCLOPTERIDAE** —
37 307001 *Paraliparis micrurus* (Barnard, 1927)

37 308000 — **FAMILY DACTYLOPTERIDAE** —
37 308003 *Dactyloptena macracanthus* (Bleeker, 1854)
37 308004 *Dactyloptena orientalis* (Cuvier, 1829)
37 308001 *Dactyloptena papilio* Ogilby, 1910
37 308002 *Dactyloptena peterseni* (Nyström, 1887)

37 309000 — **FAMILY PEGASIDAE** —
37 309001 *Eurypegasus draconis* (Linnaeus, 1766)
37 309003 *Pegasus lancifer* Kaup, 1861
37 309002 *Pegasus volitans* Linnaeus, 1758

37 310000 — **FAMILY CENTROPOMIDAE** —
37 310007 *Hypopterus macropterus* (Günther, 1859)
37 310006 *Lates calcarifer* (Bloch, 1790)
37 310001 *Psammoperca waigiensis* (Cuvier, 1828)

— Imported Species —
37 310790 *Lates niloticus* (Linnaeus, 1758)

37 310000 — **FAMILY CHANDIDAE** —
37 310009 *Ambassis agassizi* Steindachner, 1866
37 310008 *Ambassis agrammus* Günther, 1867
37 310010 *Ambassis elongatus* (Castelnau, 1878)
37 310004 *Ambassis gymnocephalus* (Lacépède, 1802)
37 310011 *Ambassis interrupta* Bleeker, 1852
37 310012 *Ambassis jacksoniensis* Macleay, 1881
37 310013 *Ambassis macleayi* (Castelnau, 1878)
37 310018 *Ambassis marianus* Günther, 1880
37 310014 *Ambassis miops* Günther, 1872
37 310015 *Ambassis mulleri* Klunzinger, 1880
37 310005 *Ambassis nalua* (Hamilton, 1822)
37 310002 *Ambassis vachellii* Richardson, 1846
37 310019 *Denariusa australis* (Steindachner, 1867)
37 310016 *Denariusa bandata* Whitley, 1948
37 310017 *Parambassis gulliveri* (Castelnau, 1878)

37 311000 — **FAMILY PERCICHTHYIDAE** —
37 311167 *Acropoma japonica* Günther, 1859
37 311053 *Apogonops anomalus* Ogilby, 1896
37 311168 *Bostockia porosa* Castelnau, 1873
37 311025 *Doederleinia berycoides* (Hilgendorf, 1879)
37 311169 *Lateolabrax japonicus* (Cuvier, 1828)
37 311181 *Maccullochella ikei* Rowland, 1986
37 311087 *Maccullochella macquariensis* (Cuvier, 1829)
37 311076 *Maccullochella peelii* (Mitchell, 1838)
37 311075 *Macquaria ambigua* (Richardson, 1845)
37 311088 *Macquaria australasica* Cuvier, 1830
37 311033 *Macquaria colonorum* (Günther, 1863)
37 311034 *Macquaria novemaculeata* (Steindachner, 1866)
37 311048 *Malakichthys elegans* Matsubara & Yamaguchi, 1943
37 311031 *Malakichthys* sp. 1 [in Sainsbury *et al.*, 1985]
37 311170 *Polyprion americanus* (Bloch & Schneider, 1801)
37 311006 *Polyprion oxygeneios* (Forster, 1801)
37 311171 *Sphyraenops bairdianus* Gill, 1860
37 311054 *Synagrops japonicus* (Döderlein, 1883)
37 311028 *Synagrops philippinensis* (Günther, 1880)
37 311172 *Synagrops* sp. [in ISR Munro Collection]

— Commercial Groupings —
37 311903 *Maccullochella* spp
37 311902 *Polyprion* spp

37 311000 — **FAMILY SERRANIDAE** —
37 311131 *Acanthistius cinctus* (Günther, 1859)
37 311090 *Acanthistius ocellatus* (Günther, 1859)
37 311132 *Acanthistius pardalotus* Hutchins, 1981
37 311133 *Acanthistius paxtoni* Hutchins & Kuiter, 1982
37 311035 *Acanthistius serratus* (Cuvier, 1828)
37 311134 *Aethaloperca rogaa* (Forsskål, 1775)
37 311050 *Anthias* sp. [in Sainsbury *et al.*, 1985]
37 311085 *Anyperodon leucogrammicus* (Valenciennes, 1828)
37 311002 *Caesioperca lepidoptera* (Forster, 1801)
37 311003 *Caesioperca rasor* (Richardson, 1839)
37 311135 *Caesioscorpis theagenes* Whitley, 1945
37 311004 *Callanthias allporti* Günther, 1876
37 311055 *Callanthias australis* (Ogilby, 1899)
37 311095 *Caprodon longimanus* (Günther, 1859)
37 311096 *Caprodon schlegelii* (Günther, 1859)
37 311030 *Centrogenys vaigiensis* (Quoy & Gaimard, 1824)
37 311082 *Cephalopholis argus* Bloch & Schneider, 1801
37 311008 *Cephalopholis boenak* (Bloch, 1790)
37 311136 *Cephalopholis cyanostigma* (Valenciennes, 1828)
37 311137 *Cephalopholis formosa* (Shaw & Nodder, 1812)
37 311138 *Cephalopholis leopardus* (Lacépède, 1801)
37 311139 *Cephalopholis microprion* (Bleeker, 1852)
37 311083 *Cephalopholis miniata* (Forsskål, 1775)
37 311140 *Cephalopholis sexmaculata* (Rüppell, 1830)
37 311045 *Cephalopholis sonnerati* (Valenciennes, 1828)
37 311141 *Cephalopholis spiloparaea* (Valenciennes, 1828)
37 311142 *Cephalopholis urodeta* (Forster, 1801)
37 311143 *Chelidoperca margaritifera* Weber, 1913
37 311023 *Chelidoperca* sp. 1 [in Sainsbury *et al.*, 1985]
37 311039 *Chelidoperca* sp. 2 [in Sainsbury *et al.*, 1985]
37 311144 *Chelidoperca* sp. 3 [in NW Shelf Guide, CSIRO, unpubl.]
37 311044 *Cromileptes altivelis* (Valenciennes, 1828)
37 311100 *Epinephelides armatus* (Castelnau, 1875)
37 311015 *Epinephelus amblycephalus* (Bleeker, 1857)
37 311009 *Epinephelus areolatus* (Forsskål, 1775)
37 311062 *Epinephelus bilobatus* Randall & Allen, 1987
37 311041 *Epinephelus bleekeri* (Vaillant, 1877)
37 311070 *Epinephelus caeruleopunctatus* (Bloch, 1790)
37 311059 *Epinephelus chlorostigma* (Valenciennes, 1828)
37 311007 *Epinephelus coioides* (Hamilton, 1822)
37 311066 *Epinephelus corallicola* (Kuhl & van Hasselt, 1828)
37 311145 *Epinephelus cyanopodus* (Richardson, 1846)
37 311077 *Epinephelus daemelii* (Günther, 1876)
37 311146 *Epinephelus darwinensis* Randall & Heemstra, 1991
37 311046 *Epinephelus epistictus* (Temminck & Schlegel, 1843)
37 311147 *Epinephelus ergastularius* Whitley, 1930
37 311014 *Epinephelus fasciatus* (Forsskål, 1775)
37 311021 *Epinephelus fuscoguttatus* (Forsskål, 1775)
37 311019 *Epinephelus heniochus* Fowler, 1904
37 311064 *Epinephelus hexagonatus* (Forster, 1801)
37 311148 *Epinephelus howlandi* (Günther, 1873)
37 311061 *Epinephelus lanceolatus* (Bloch, 1790)
37 311043 *Epinephelus latifasciatus* (Temminck & Schlegel, 1843)
37 311149 *Epinephelus macrospilos* (Bleeker, 1855)
37 311011 *Epinephelus maculatus* (Bloch, 1790)
37 311173 *Epinephelus magniscuttis* Postel, Fourmanoir & Guézé, 1963
37 311150 *Epinephelus malabaricus* (Bloch & Schneider, 1801)
37 311065 *Epinephelus melanostigma* Schultz, 1953
37 311063 *Epinephelus merra* Bloch, 1793
37 311177 *Epinephelus miliaris* (Valenciennes, 1830)
37 311151 *Epinephelus morrhua* (Valenciennes, 1833)
37 311010 *Epinephelus multinotatus* (Peters, 1877)
37 311152 *Epinephelus octofasciatus* Griffin, 1926
37 311069 *Epinephelus ongus* (Bloch, 1790)
37 311153 *Epinephelus perplexus* Randall, Hoese & Last, 1991
37 311047 *Epinephelus polyphekadion* (Bleeker, 1849)
37 311154 *Epinephelus polystigma* (Bleeker, 1853)
37 311040 *Epinephelus quoyanus* (Valenciennes, 1830)
37 311042 *Epinephelus radiatus* (Day, 1868)
37 311022 *Epinephelus rivulatus* (Valenciennes, 1830)
37 311060 *Epinephelus septemfasciatus* (Thunberg, 1793)
37 311017 *Epinephelus sexfasciatus* (Kuhl & van Hasselt, 1828)
37 311155 *Epinephelus spilotoceps* Schultz, 1953
37 311018 *Epinephelus stictus* Randall & Allen, 1987
37 311057 *Epinephelus tauvina* (Forsskål, 1775)
37 311073 *Epinephelus timorensis* Randall & Allen, 1987
37 311074 *Epinephelus trophis* Randall & Allen, 1987
37 311068 *Epinephelus tukula* Morgans, 1959

37 311086 *Epinephelus undulatostriatus* (Peters, 1867)
37 311156 *Gracila albomarginata* (Fowler & Bean, 1930)
37 311091 *Hypoplectrodes annulata* (Günther, 1859)
37 311101 *Hypoplectrodes cardinalis* Allen & Randall, 1990
37 311097 *Hypoplectrodes jamesoni* Ogilby, 1908
37 311036 *Hypoplectrodes maccullochi* Whitley, 1929
37 311037 *Hypoplectrodes nigroruber* (Cuvier, 1828)
37 311099 *Hypoplectrodes wilsoni* (Allen & Moyer, 1980)
37 311102 *Lepidoperca brochata* Katayama & Fujii, 1982
37 311175 *Lepidoperca filamenta* Roberts, 1987
37 311103 *Lepidoperca magna* Katayama & Fujii, 1982
37 311052 *Lepidoperca occidentalis* Whitley, 1951
37 311001 *Lepidoperca pulchella* (Waite, 1899)
37 311038 *Lepidoperca tasmanica* Norman, 1937
37 311157 *Liopropoma mitratum* Lubbock & Randall, 1978
37 311158 *Liopropoma multilineatum* Randall & Taylor, 1988
37 311159 *Liopropoma susumi* (Jordan & Seale, 1906)
37 311104 *Luzonichthys waitei* (Fowler, 1931)
37 311160 *Ostracoberyx* cf *trifornis* Matsubara, 1939
37 311161 *Ostracoberyx paxtoni* Quéro & Ozouf-Costaz, 1991
37 311005 *Othos dentex* (Cuvier, 1828)
37 311105 *Plectranthias alleni* Randall, 1980
37 311027 *Plectranthias japonicus* (Steindachner, 1884)
37 311178 *Plectranthias lasti* Randall & Hoese, 1995
37 311106 *Plectranthias longimanus* Weber, 1913
37 311107 *Plectranthias maculicauda* (Regan, 1914)
37 311108 *Plectranthias megalophthalmus* Fourmanoir & Randall, 1979
37 311109 *Plectranthias nanus* Randall, 1980
37 311179 *Plectranthias pallidus* Randall & Hoese, 1995
37 311180 *Plectranthias robertsi* Randall & Hoese, 1995
37 311110 *Plectranthias wheeleri* Randall, 1980
37 311111 *Plectranthias winniensis* (Tyler, 1966)
37 311081 *Plectropomus areolatus* (Rüppell, 1830)
37 311079 *Plectropomus laevis* (Lacépède, 1801)
37 311078 *Plectropomus leopardus* (Lacépède, 1802)
37 311012 *Plectropomus maculatus* (Bloch, 1790)
37 311162 *Plectropomus oligacanthus* (Bleeker, 1854)
37 311112 *Pseudanthias bicolor* (Randall, 1979)
37 311092 *Pseudanthias caesiopercula* (Whitley, 1951)
37 311056 *Pseudanthias* cf *rubrizonatus* (Randall, 1983)
37 311113 *Pseudanthias cooperi* (Regan, 1902)
37 311114 *Pseudanthias dispar* (Herre, 1955)
37 311115 *Pseudanthias engelhardi* (Allen & Starck, 1982)
37 311116 *Pseudanthias fasciata* (Kamohara, 1954)
37 311093 *Pseudanthias georgei* (Allen, 1976)
37 311117 *Pseudanthias huchtii* (Bleeker, 1857)
37 311118 *Pseudanthias hypselosoma* Bleeker, 1878
37 311119 *Pseudanthias lori* (Lubbock & Randall, 1976)
37 311120 *Pseudanthias luzonensis* (Katayama & Masuda, 1983)
37 311121 *Pseudanthias pascalus* (Jordan & Tanaka, 1927)
37 311122 *Pseudanthias pictilis* (Randall & Allen, 1978)
37 311123 *Pseudanthias pleurotaenia* (Bleeker, 1857)
37 311124 *Pseudanthias rubrizonatus* (Randall, 1983)
37 311176 *Pseudanthias sheni* Randall & Allen, 1989
37 311125 *Pseudanthias smithvanizi* (Randall & Lubbock, 1981)
37 311126 *Pseudanthias squamipinnis* (Peters, 1855)
37 311094 *Pseudanthias truncatus* (Katayama & Masuda, 1983)
37 311127 *Pseudanthias tuka* (Herre & Montalban, 1927)
37 311128 *Pseudanthias ventralis* (Randall, 1979)
37 311163 *Rainfordia opercularis* McCulloch, 1923
37 311174 *Saloptia powelli* Smith, 1964
37 311049 *Selenanthias analis* Tanaka, 1918
37 311130 *Serranocirrhitus latus* Watanabe, 1949
37 311164 *Trachypoma macracanthus* Günther, 1859
37 311165 *Triso dermopterus* (Temminck & Schlegel, 1843)
37 311026 *Variola albimarginata* Baissac, 1953
37 311166 *Variola louti* (Forsskål, 1775)

— Commercial Groupings —

37 311907 Anthiinae spp
37 311904 *Cephalopholis* spp
37 311908 Epinephelinae spp
37 311901 Serranidae spp [*Epinephelus*, *Anyperodon* & *Aethaloperca* only]
37 311909 Serranidae spp [*Epinephelus* & *Cephalopholis* spp only]
37 311905 Serranidae spp [*Plectropomus* spp & *Variola* spp only]
37 311906 Serraninae spp

37 312000 — **FAMILY GRAMMISTIDAE** —
37 312003 *Aulacocephalus temmincki* Bleeker, 1857
37 312005 *Belonoperca chabanaudi* Fowler & Bean, 1930
37 312002 *Diploprion bifasciatum* Cuvier, 1828
37 312006 *Grammistes sexlineatus* (Thunberg, 1792)
37 312001 *Grammistidae* sp. [in Sainsbury *et al.*, 1985]
37 312007 *Grammistops ocellatus* Schultz, 1953

37 313000 — **FAMILY PSEUDOCHROMIDAE** —
37 313013 *Cypho purpurascens* (De Vis, 1884)
37 313026 *Labracinus cyclophthalmus* (Müller & Troschel, 1849)
37 313003 *Labracinus lineatus* (Castelnau, 1875)
37 313009 *Ogilbyina novaehollandiae* (Steindachner, 1880)
37 313014 *Ogilbyina queenslandiae* (Saville-Kent, 1893)
37 313017 *Ogilbyina velifera* (Lubbock, 1980)
37 313004 *Pseudochromis bitaeniatus* (Fowler, 1931)
37 313016 *Pseudochromis cyanotaenia* Bleeker, 1857
37 313005 *Pseudochromis flammicauda* Lubbock & Goldman, 1976
37 313006 *Pseudochromis fuscus* Müller & Troschel, 1849
37 313007 *Pseudochromis jamesi* Schultz, 1943
37 313008 *Pseudochromis marshallensis* Schultz, 1953
37 313010 *Pseudochromis paccagnellae* Axelrod, 1973
37 313011 *Pseudochromis paranox* Lubbock & Goldman, 1976
37 313012 *Pseudochromis punctatus* (Richardson, 1846)
37 313001 *Pseudochromis quinquedentatus* McCulloch, 1926
37 313027 *Pseudochromis reticulatus* Gill & Woodland, 1992
37 313015 *Pseudochromis splendens* Fowler, 1931
37 313028 *Pseudochromis tapeinosoma* Bleeker, 1853
37 313018 *Pseudochromis wilsoni* (Whitley, 1929)
37 313019 *Pseudoplesiops annae* (Weber, 1913)
37 313020 *Pseudoplesiops howensis* Allen, 1987
37 313021 *Pseudoplesiops knighti* Allen, 1987
37 313022 *Pseudoplesiops multisquamatus* Allen, 1987
37 313023 *Pseudoplesiops revellei* Schultz, 1953
37 313024 *Pseudoplesiops rosae* Schultz, 1943
37 313025 *Pseudoplesiops typus* Bleeker, 1858

37 314000 — **FAMILY PSEUDOGRAMMATIDAE** —
37 314001 *Aporops bilinearis* Schultz, 1943
37 314002 *Pseudogramma polyacantha* (Bleeker, 1856)

37 316000 — **FAMILY PLESIOPIDAE** —
37 316003 *Assessor flavissimus* Allen & Kuiter, 1976
37 316004 *Assessor macneilli* Whitley, 1935
37 316005 *Calloplesiops altivelis* (Steindachner, 1903)
37 316006 *Fraudella carassiops* Whitley, 1935
37 316007 *Paraplesiops alisoniae* Hoese & Kuiter, 1984
37 316008 *Paraplesiops bleekeri* (Günther, 1861)
37 316009 *Paraplesiops meleagris* (Peters, 1869)
37 316010 *Paraplesiops poweri* Ogilby, 1908
37 316011 *Paraplesiops sinclairi* Hutchins, 1987
37 316012 *Plesiops cephalotaenia* Inger, 1955
37 316013 *Plesiops coeruleolineatus* Rüppell, 1835
37 316014 *Plesiops corallicola* Bleeker, 1853
37 316019 *Plesiops genaricus* Mooi & Randall, 1991
37 316020 *Plesiops gracilis* Mooi & Randall, 1991
37 316021 *Plesiops insularis* Mooi & Randall, 1991
37 316015 *Steeneichthys plesiopsus* Allen & Randall, 1985
37 316016 *Trachinops brauni* Allen, 1977
37 316001 *Trachinops caudimaculatus* McCoy, 1890
37 316017 *Trachinops noarlungae* Glover, 1974
37 316018 *Trachinops taeniatus* Günther, 1861

— Commercial Groupings —
37 316900 *Trachinops* spp

37 319000 — **FAMILY ACANTHOCLINIDAE** —
37 319001 *Beliops xanthokrossos* Hardy, 1985
37 319002 *Belonepterygion fasciolatum* (Ogilby, 1889)

37 320000 — **FAMILY GLAUCOSOMATIDAE** —
37 320001 *Glaucosoma buergeri* Richardson, 1845
37 320004 *Glaucosoma hebraicum* Richardson, 1845
37 320002 *Glaucosoma magnificum* (Ogilby, 1915)

37 320003 *Glaucosoma scapulare* Macleay, 1881

— Commercial Groupings —

37 320901 *Glaucosoma* spp

37 321000 **— FAMILY TERAPONIDAE —**
37 321007 *Amniataba caudavittata* (Richardson, 1845)
37 321009 *Amniataba percoides* (Günther, 1864)
37 321008 *Bidyanus bidyanus* (Mitchell, 1838)
37 321010 *Bidyanus welchi* (McCulloch & Waite, 1917)
37 321011 *Hannia greenwayi* Vari, 1978
37 321012 *Hephaestus carbo* (Ogilby & McCulloch, 1916)
37 321013 *Hephaestus epirrhinos* Vari & Hutchins, 1978
37 321014 *Hephaestus fuliginosus* (Macleay, 1883)
37 321015 *Hephaestus jenkinsi* (Whitley, 1945)
37 321016 *Leiopotherapon aheneus* (Mees, 1963)
37 321017 *Leiopotherapon macrolepis* Vari, 1978
37 321018 *Leiopotherapon unicolor* (Günther, 1859)
37 321019 *Mesopristes argenteus* (Cuvier, 1829)
37 321020 *Pelates octolineatus* (Jenyns, 1840)
37 321001 *Pelates quadrilineatus* (Bloch, 1790)
37 321005 *Pelates sexlineatus* (Quoy & Gaimard, 1824)
37 321021 *Pelsartia humeralis* (Ogilby, 1899)
37 321023 *Pingalla gilberti* Whitley, 1955
37 321022 *Pingalla lorentzi* (Weber, 1910)
37 321024 *Pingalla midgleyi* Allen & Merrick, 1984
37 321025 *Scortum barcoo* (McCulloch & Waite, 1917)
37 321026 *Scortum hillii* (Castelnau, 1878)
37 321032 *Scortum neili* Allen, Larson & Midgley, 1993
37 321027 *Scortum parviceps* (Macleay, 1883)
37 321028 *Syncomistes butleri* Vari, 1978
37 321029 *Syncomistes kimberleyensis* Vari, 1978
37 321030 *Syncomistes rastellus* Vari & Hutchins, 1978
37 321031 *Syncomistes trigonicus* Vari, 1978
37 321002 *Terapon jarbua* (Forsskål, 1775)
37 321006 *Terapon puta* (Cuvier, 1829)
37 321003 *Terapon theraps* (Cuvier, 1829)
37 321033 *Variichthys lacustris* (Mees & Kailola, 1977)

37 322000 **— FAMILY BANJOSIDAE —**
37 322001 *Banjos banjos* (Richardson, 1846)

37 323000 **— FAMILY KUHLIIDAE —**
37 323007 *Edelia obscura* (Klunzinger, 1872)
37 323002 *Edelia vittata* Castelnau, 1873
37 323003 *Kuhlia munda* (De Vis, 1884)
37 323004 *Kuhlia rupestris* (Lacépède, 1802)
37 323005 *Kuhlia taeniura* (Cuvier, 1829)
37 323006 *Nannatherina balstoni* Regan, 1906
37 323001 *Nannoperca australis* Günther, 1861
37 323008 *Nannoperca oxleyana* Whitley, 1940
37 323009 *Nannoperca variegata* Kuiter & Allen, 1985

37 326000 **— FAMILY PRIACANTHIDAE —**
37 326002 *Cookeolus japonicus* (Cuvier, 1829)
37 326008 *Heteropriacanthus cruentatus* (Lacépède, 1801)
37 326012 *Priacanthus blochii* Bleeker, 1853
37 326011 *Priacanthus fitchi* Starnes, 1988
37 326005 *Priacanthus hamrur* (Forsskål, 1775)
37 326001 *Priacanthus macracanthus* Cuvier, 1829
37 326009 *Priacanthus sagittarius* Starnes, 1988
37 326003 *Priacanthus tayenus* Richardson, 1846
37 326006 *Pristigenys niphonia* (Cuvier, 1829)

— Commercial Groupings —

37 326901 *Priacanthus* spp

37 327000 **— FAMILY APOGONIDAE —**
37 327014 *Apogon albimaculosus* Kailola, 1976
37 327042 *Apogon angustatus* (Smith & Radcliffe, 1911)
37 327043 *Apogon apogonides* (Bleeker, 1856)
37 327128 *Apogon aroubiensis* Hombron & Jaquinot, 1853
37 327129 *Apogon atripes* (Ogilby, 1916)
37 327044 *Apogon atrogaster* (Smith & Radcliffe, 1911)

37 327020 *Apogon aureus* (Lacépède, 1802)
37 327045 *Apogon bandanensis* Bleeker, 1854
37 327005 *Apogon brevicaudata* Weber, 1909
37 327125 *Apogon capricornis* Allen & Randall, 1993
37 327027 *Apogon carinatus* Cuvier, 1828
37 327028 *Apogon cavitiensis* (Jordan & Seale, 1907)
37 327046 *Apogon ceramensis* Bleeker, 1852
37 327130 *Apogon* cf *aureus* [see Kuiter, 1993]
37 327131 *Apogon chrysopomus* Bleeker, 1854
37 327047 *Apogon chrysotaenia* Bleeker, 1851
37 327048 *Apogon coccineus* Rüppell, 1838
37 327049 *Apogon compressus* (Smith & Radcliffe,1911)
37 327050 *Apogon cookii* Macleay, 1881
37 327051 *Apogon crassiceps* Garman, 1903
37 327052 *Apogon cyanosoma* (Bleeker, 1853)
37 327053 *Apogon doederleini* Jordan & Snyder, 1901
37 327013 *Apogon ellioti* Day, 1875
37 327054 *Apogon endekataenia* (Bleeker, 1852)
37 327055 *Apogon evermanni* Jordan & Snyder, 1904
37 327056 *Apogon exostigma* (Jordan & Starks, 1906)
37 327008 *Apogon fasciatus* (White, 1790)
37 327126 *Apogon flavus* Allen & Randall, 1993
37 327057 *Apogon fraenatus* Valenciennes, 1832
37 327058 *Apogon fragilis* Smith, 1961
37 327140 *Apogon fuscomaculatus* Allen & Morrison, 1996
37 327059 *Apogon fuscus* Quoy & Gaimard, 1825
37 327061 *Apogon guamensis* Valenciennes, 1832
37 327062 *Apogon hoevenii* Bleeker, 1854
37 327039 *Apogon hyalosoma* Bleeker, 1852
37 327063 *Apogon kallopterus* Bleeker, 1856
37 327132 *Apogon kiensis* Jordan & Snyder, 1901
37 327064 *Apogon lateralis* Valenciennes, 1832
37 327065 *Apogon leptacanthus* Bleeker, 1856
37 327066 *Apogon limenus* Randall & Hoese, 1988
37 327016 *Apogon melanopus* Weber, 1911
37 327133 *Apogon melas* Bleeker, 1848
37 327067 *Apogon moluccensis* Valenciennes, 1832
37 327009 *Apogon nigripinnis* Cuvier, 1828
37 327068 *Apogon nigrofasciatus* Lachner, 1953
37 327124 *Apogon norfolcensis* Ogilby, 1888
37 327069 *Apogon notatus* (Houttuyn, 1782)
37 327019 *Apogon novemfasciatus* Cuvier, 1828
37 327070 *Apogon opercularis* Macleay, 1878
37 327071 *Apogon pallidofasciatus* Allen, 1987
37 327026 *Apogon poecilopterus* Cuvier, 1828
37 327072 *Apogon properupta* (Whitley, 1964)
37 327040 *Apogon ruppellii* Günther, 1859
37 327073 *Apogon sangiensis* Bleeker, 1857
37 327134 *Apogon seali* Fowler, 1918
37 327004 *Apogon semilineatus* Schlegel, 1843
37 327074 *Apogon semiornatus* Peters, 1876
37 327012 *Apogon septemstriatus* Günther, 1880
37 327025 *Apogon* sp. 1 [in Sainsbury *et al.*, 1985]
37 327029 *Apogon* sp. 2 [in Sainsbury *et al.*, 1985]
37 327075 *Apogon taeniophorus* Regan, 1908
37 327076 *Apogon talboti* Smith, 1961
37 327077 *Apogon timorensis* Bleeker, 1854
37 327078 *Apogon trimaculatus* Cuvier, 1828
37 327135 *Apogon unitaeniatus* Allen, 1995
37 327079 *Apogon victoriae* Günther, 1859
37 327080 *Apogonichthys ocellatus* Weber, 1913
37 327081 *Apogonichthys perdix* Bleeker, 1854
37 327136 *Archamia dispilus* Lachner, 1951
37 327082 *Archamia fucata* (Cantor, 1849)
37 327083 *Archamia leai* Waite, 1916
37 327084 *Archamia melasma* Lachner & Taylor, 1960
37 327085 *Archamia zosterophora* (Bleeker, 1856)
37 327137 *Cercamia cremia* (Allen, 1987)
37 327113 *Cercamia eremia* (Allen, 1987)
37 327086 *Cheilodipterus artus* Smith, 1961
37 327138 *Cheilodipterus intermedius* Gon, 1993
37 327089 *Cheilodipterus macrodon* (Lacépède, 1801)
37 327092 *Cheilodipterus parazonatus* Gon, 1993
37 327090 *Cheilodipterus quinquelineatus* Cuvier, 1828
37 327091 *Cheilodipterus singapurensis* Bleeker, 1859
37 327010 *Epigonus denticulatus* Dieuzeide, 1950
37 327001 *Epigonus lenimen* (Whitley, 1935)
37 327093 *Epigonus macrops* (Brauer, 1906)
37 327018 *Epigonus robustus* (Barnard, 1927)

37 327035 *Epigonus telescopus* (Risso, 1810)
37 327094 *Foa brachygramma* (Jenkins, 1903)
37 327095 *Foa fo* Jordan & Seale, 1906
37 327096 *Foa vaiulae* Jordan & Seale, 1906
37 327097 *Fowleria abocellata* Goren & Karplus, 1980
37 327098 *Fowleria aurita* (Valenciennes, 1831)
37 327099 *Fowleria marmorata* (Alleyne & Macleay, 1877)
37 327100 *Fowleria punctulata* (Rüppell,1838)
37 327101 *Fowleria variegata* (Valenciennes, 1832)
37 327102 *Glossamia aprion* (Richardson, 1842)
37 327103 *Gymnapogon annona* (Whitley, 1936)
37 327104 *Gymnapogon urospilotus* Lachner, 1953
37 327139 *Gymnapogon vanderbilti* (Fowler, 1938)
37 327037 *Howella brodiei* Ogilby, 1899
37 327036 *Howella sherboni* (Norman, 1930)
37 327105 *Neamia octospina* Smith & Radcliffe, 1912
37 327106 *Pseudamia amblyuroptera* (Bleeker, 1856)
37 327107 *Pseudamia gelatinosa* Smith, 1955
37 327108 *Pseudamia hayashii* Randall, Lachner & Fraser, 1985
37 327109 *Pseudamia nigra* Allen, 1992
37 327110 *Pseudamiops gracilicauda* (Lachner, 1953)
37 327111 *Pterapogon mirifica* (Mees, 1966)
37 327112 *Rhabdamia cypselurus* Weber, 1909
37 327022 *Rhabdamia gracilis* (Bleeker, 1856)
37 327114 *Rosenblattia robusta* Mead & De Falla, 1965
37 327024 *Siphamia argyrogaster* (Weber, 1909)
37 327032 *Siphamia cephalotes* (Castelnau, 1875)
37 327115 *Siphamia cuniceps* Whitley, 1941
37 327023 *Siphamia fistulosa* (Weber, 1909)
37 327116 *Siphamia guttulatus* (Alleyne & Macleay, 1877)
37 327117 *Siphamia majimae* Matsubara & Iwai, 1958
37 327017 *Siphamia roseigaster* (Ogilby, 1886)
37 327118 *Siphamia tubulata* (Weber, 1909)
37 327021 *Siphamia versicolor* (Smith & Radcliffe, 1911)
37 327119 *Sphaeramia nematoptera* (Bleeker, 1856)
37 327120 *Vincentia badia* Allen, 1987
37 327121 *Vincentia chrysura* (Ogilby, 1889)
37 327033 *Vincentia conspersa* (Klunzinger, 1872)
37 327122 *Vincentia macrocauda* Allen, 1987
37 327034 *Vincentia novaehollandiae* (Valenciennes, 1832)
37 327123 *Vincentia punctata* (Klunzinger, 1880)

37 327000 **— FAMILY DINOLESTIDAE —**
37 327002 *Dinolestes lewini* (Griffith, 1834)

37 329000 **— FAMILY PERCIDAE —**
37 329001 *Perca fluviatilis* Linnaeus, 1758

37 330000 **— FAMILY SILLAGINIDAE —**
37 330001 *Sillaginodes punctata* (Cuvier, 1829)
37 330003 *Sillago analis* Whitley, 1943
37 330002 *Sillago bassensis* Cuvier, 1829
37 330004 *Sillago burrus* Richardson, 1842
37 330010 *Sillago ciliata* Cuvier, 1829
37 330014 *Sillago flindersi* McKay, 1985
37 330009 *Sillago ingenuua* McKay, 1985
37 330007 *Sillago lutea* McKay, 1985
37 330015 *Sillago maculata* Quoy & Gaimard, 1824
37 330005 *Sillago robusta* Stead, 1908
37 330012 *Sillago schomburgkii* Peters, 1865
37 330006 *Sillago sihama* (Forsskål, 1775)
37 330013 *Sillago vittata* McKay, 1985

— Commercial Groupings —
37 330901 *Sillago* spp [*S. flindersi, S. bassensis* & *S. robusta* only]

37 331000 **— FAMILY MALACANTHIDAE —**
37 331002 *Branchiostegus australiensis* Dooley & Kailola, 1988
37 331003 *Branchiostegus hedlandensis* Dooley & Kailola, 1988
37 331004 *Branchiostegus paxtoni* Dooley & Kailola, 1988
37 331001 *Branchiostegus sawakinensis* Amirthalingam, 1969
37 331005 *Branchiostegus serratus* Dooley & Paxton, 1975

37 331006 *Branchiostegus wardi* Whitley, 1932
37 331007 *Hoplolatilus cuniculus* Randall & Dooley, 1974
37 331008 *Hoplolatilus starcki* Randall & Dooley, 1974
37 331009 *Malacanthus brevirostris* Guichenot, 1848
37 331010 *Malacanthus latovittatus* (Lacépède, 1801)

37 332000 — **FAMILY LABRACOGLOSSIDAE** —
37 332001 *Bathystethus cultratus* (Forster, 1801)
37 332002 *Labracoglossa nitida* McCulloch & Waite, 1916

37 333000 — **FAMILY LACTARIIDAE** —
37 333001 *Lactarius lactarius* (Bloch & Schneider, 1801)

37 334000 — **FAMILY POMATOMIDAE** —
37 334002 *Pomatomus saltatrix* (Linnaeus, 1766)

37 335000 — **FAMILY RACHYCENTRIDAE** —
37 335001 *Rachycentron canadum* (Linnaeus, 1766)

37 336000 — **FAMILY ECHENEIDAE** —
37 336001 *Echeneis naucrates* Linnaeus, 1758
37 336003 *Phtheiricthys lineatus* (Menzies, 1791)
37 336004 *Remora australis* (Bennett, 1840)
37 336005 *Remora brachyptera* (Lowe, 1839)
37 336006 *Remora osteochir* (Cuvier, 1829)
37 336002 *Remora remora* (Linnaeus, 1758)
37 336007 *Remorina albescens* (Temminck & Schlegel, 1847)

37 337000 — **FAMILY CARANGIDAE** —
37 337018 *Alectis ciliaris* (Bloch, 1787)
37 337038 *Alectis indicus* (Rüppell, 1830)
37 337010 *Alepes* sp. [in Paxton *et al.*, 1989]
37 337067 *Alepes vari* (Cuvier, 1833)
37 337024 *Atule mate* (Cuvier, 1833)
37 337021 *Carangoides caeruleopinnatus* (Rüppell, 1830)
37 337011 *Carangoides chrysophrys* (Cuvier, 1833)
37 337013 *Carangoides equula* (Schlegel, 1844)
37 337068 *Carangoides ferdau* (Forsskål, 1775)
37 337037 *Carangoides fulvoguttatus* (Forsskål, 1775)
37 337022 *Carangoides gymnostethus* (Cuvier, 1833)
37 337042 *Carangoides hedlandensis* (Whitley, 1934)
37 337031 *Carangoides humerosus* (McCulloch, 1915)
37 337005 *Carangoides malabaricus* (Bloch & Schneider, 1801)
37 337069 *Carangoides oblongus* (Cuvier, 1833)
37 337057 *Carangoides orthogrammus* (Jordan & Gilbert, 1882)
37 337070 *Carangoides plagiotaenia* Bleeker, 1857
37 337043 *Carangoides talamparoides* Bleeker, 1852
37 337016 *Caranx bucculentus* Alleyne & Macleay, 1877
37 337027 *Caranx ignobilis* (Forsskål, 1775)
37 337036 *Caranx kleinii* (Bloch, 1793)
37 337053 *Caranx lugubris* Poey, 1860
37 337050 *Caranx melampygus* Cuvier, 1833
37 337064 *Caranx papuensis* Alleyne & Macleay, 1877
37 337039 *Caranx sexfasciatus* Quoy & Gaimard, 1825
37 337049 *Caranx tille* Cuvier, 1833
37 337056 *Decapterus kurroides* Bleeker, 1855
37 337055 *Decapterus macarellus* (Cuvier, 1833)
37 337017 *Decapterus macrosoma* Bleeker, 1851
37 337071 *Decapterus muroadsi* (Temminck & Schlegel, 1844)
37 337023 *Decapterus russelli* (Rüppell, 1830)
37 337060 *Decapterus tabl* Berry, 1968
37 337029 *Elegatis bipinnulata* (Quoy & Gaimard, 1825)
37 337012 *Gnathanodon speciosus* (Forsskål, 1775)
37 337028 *Megalaspis cordyla* (Linnaeus, 1758)
37 337040 *Naucrates ductor* (Linnaeus, 1758)
37 337047 *Pantolabus radiatus* (Macleay, 1881)
37 337072 *Parastromateus niger* (Bloch, 1795)
37 337062 *Pseudocaranx dentex* (Bloch & Schneider, 1801)
37 337063 *Pseudocaranx wrighti* (Whitley, 1931)
37 337032 *Scomberoides commersonnianus* Lacépède, 1801
37 337046 *Scomberoides lysan* (Forsskål, 1775)
37 337045 *Scomberoides tala* (Cuvier, 1832)
37 337044 *Scomberoides tol* (Cuvier, 1832)

37 337008 *Selar boops* (Cuvier, 1833)
37 337009 *Selar crumenophthalmus* (Bloch, 1793)
37 337015 *Selaroides leptolepis* (Kuhl & van Hasselt, 1833)
37 337025 *Seriola dumerili* (Risso, 1810)
37 337007 *Seriola hippos* Günther, 1876
37 337006 *Seriola lalandi* Valenciennes, 1833
37 337052 *Seriola rivoliana* Valenciennes, 1833
37 337014 *Seriolina nigrofasciata* (Rüppell, 1829)
37 337073 *Trachinotus anak* Ogilby, 1909
37 337074 *Trachinotus baillonii* (Lacépède, 1801)
37 337075 *Trachinotus blochii* (Lacépède, 1801)
37 337066 *Trachinotus botla* (Shaw, 1803)
37 337065 *Trachinotus* cf *mookalee* Cuvier, 1832
37 337076 *Trachinotus coppingeri* (Günther, 1884)
37 337002 *Trachurus declivis* (Jenyns, 1841)
37 337077 *Trachurus murphyi* Nichols, 1920
37 337003 *Trachurus novaezelandiae* Richardson, 1843
37 337041 *Ulua aurochs* (Ogilby, 1915)
37 337048 *Ulua mentalis* (Cuvier, 1833)
37 337059 *Uraspis secunda* Poey, 1860
37 337020 *Uraspis uraspis* (Günther, 1860)

— Commercial Groupings —

37 337906 Carangidae spp [*Caranx*, *Carangoides*, *Selar*, *Selaroides*, *Gnathanodon*, *Alepes*, *Atule*, *Alectis*, *Trachinotus*, *Scomberoides* spp]
37 337908 Carangidae spp [*Caranx* & *Pseudocaranx* spp only]
37 337902 *Carangoides* spp [*C. chrysophrys* & *C. caeruleopinnatus* only]
37 337901 *Decapterus* spp
37 337905 *Scomberoides* spp
37 337904 *Trachinotus* spp
37 337907 *Trachurus* spp

37 338000 — **FAMILY CORYPHAENIDAE** —
37 338002 *Coryphaena equiselis* Linnaeus, 1758
37 338001 *Coryphaena hippurus* Linnaeus, 1758

37 340000 — **FAMILY MENIDAE** —
37 340001 *Mene maculata* (Bloch & Schneider, 1801)

37 341000 — **FAMILY LEIOGNATHIDAE** —
37 341007 *Gazza minuta* (Bloch, 1797)
37 341018 *Leiognathus aureus* Abe & Haneda, 1972
37 341002 *Leiognathus bindus* (Valenciennes, 1835)
37 341013 *Leiognathus blochii* (Valenciennes, 1835)
37 341016 *Leiognathus decorus* (De Vis, 1884)
37 341011 *Leiognathus elongatus* (Günther, 1874)
37 341014 *Leiognathus equulus* (Forsskål, 1775)
37 341009 *Leiognathus fasciatus* (Lacépède, 1803)
37 341005 *Leiognathus leuciscus* (Günther, 1860)
37 341012 *Leiognathus moretoniensis* Ogilby, 1912
37 341015 *Leiognathus ruconius* (Hamilton-Buchanan, 1822)
37 341004 *Leiognathus smithursti* (Ramsay & Ogilby, 1886)
37 341003 *Leiognathus* sp. [in Sainsbury *et al.*, 1985]
37 341010 *Leiognathus splendens* (Cuvier, 1829)
37 341006 *Secutor insidiator* (Bloch, 1787)
37 341021 *Secutor interruptus* (Valenciennes, 1835)
37 341022 *Secutor megalolepis* Mochizuki & Hayashi, 1989

37 342000 — **FAMILY BRAMIDAE** —
37 342010 *Brama australis* Valenciennes, 1837
37 342001 *Brama brama* (Bonnaterre, 1788)
37 342011 *Brama dussumieri* Cuvier, 1831
37 342012 *Brama myersi* Mead, 1972
37 342004 *Brama orcini* Cuvier, 1831
37 342009 *Brama pauciradiata* Moteki, Fujita & Last, 1995
37 342005 *Eumegistus illustris* Jordan & Jordan, 1922
37 342013 *Pteraclis aesticola* (Jordan & Snyder, 1901)
37 342006 *Pteraclis velifera* (Pallas, 1769)
37 342007 *Pterycombus petersii* (Hilgendorf, 1878)
37 342008 *Taractes asper* Lowe, 1843
37 342014 *Taractes rubescens* (Jordan & Evermann, 1887)
37 342003 *Taractichthys longipinnis* (Lowe, 1843)

37 342015 *Taractichthys steindachneri* (Döderlein, 1883)
37 342002 *Xenobrama microlepis* Yatsu & Nakamura, 1989

— Commercial Groupings —
37 342900 *Brama* spp
37 342901 Bramidae spp [*Brama, Taractichthys & Xenobrama* only]

37 343000 **— FAMILY CARISTIIDAE —**
37 343001 *Caristius* sp. [Last, unpubl.]
37 343002 *Platyberyx* sp. [Last, unpubl.]

37 344000 **— FAMILY ARRIPIDAE —**
37 344001 *Arripis georgianus* (Valenciennes, 1831)
37 344002 *Arripis trutta* (Bloch & Schneider, 1801)
37 344004 *Arripis truttaceus* (Cuvier, 1829)
37 344005 *Arripis xylabion* Paulin, 1993

— Commercial Groupings —
37 344900 *Arripis* spp [*A. trutta & A. truttaceus* only]

37 345000 **— FAMILY EMMELICHTHYIDAE —**
37 345001 *Emmelichthys nitidus* Richardson, 1845
37 345004 *Emmelichthys struhsakeri* Heemstra & Randall, 1977
37 345002 *Plagiogeneion macrolepis* McCulloch, 1914
37 345003 *Plagiogeneion rubiginosus* (Hutton, 1875)

— Commercial Groupings —
37 345901 *Emmelichthys* spp
37 345900 *Plagiogeneion* spp

37 346000 **— FAMILY CAESIONIDAE —**
37 346024 *Caesio caerulaurea* Lacépède, 1801
37 346018 *Caesio cuning* (Bloch, 1791)
37 346061 *Caesio lunaris* Cuvier, 1830
37 346037 *Caesio teres* Seale, 1906
37 346013 *Dipterygonotus balteatus* (Valenciennes, 1830)
37 346009 *Pterocaesio chrysozona* (Cuvier, 1830)
37 346050 *Pterocaesio digramma* (Bleeker, 1865)
37 346062 *Pterocaesio pisang* (Bleeker, 1853)
37 346063 *Pterocaesio tile* (Cuvier, 1830)
37 346051 *Pterocaesio trilineata* Carpenter, 1987

37 346000 **— FAMILY LUTJANIDAE —**
37 346036 *Aphareus furcatus* (Lacépède, 1801)
37 346001 *Aphareus rutilans* Cuvier, 1830
37 346027 *Aprion virescens* Valenciennes, 1830
37 346014 *Etelis carbunculus* Cuvier, 1828
37 346038 *Etelis coruscans* Valenciennes, 1862
37 346058 *Etelis radiosus* Anderson, 1981
37 346031 *Lipocheilus carnolabrum* (Chan, 1970)
37 346033 *Lutjanus adetii* (Castelnau, 1873)
37 346015 *Lutjanus argentimaculatus* (Forsskål, 1775)
37 346039 *Lutjanus biguttatus* (Valenciennes, 1830)
37 346025 *Lutjanus bitaeniatus* (Valenciennes, 1830)
37 346029 *Lutjanus bohar* (Forsskål, 1775)
37 346040 *Lutjanus boutton* (Lacépède, 1802)
37 346011 *Lutjanus carponotatus* (Richardson, 1842)
37 346041 *Lutjanus decussatus* (Cuvier, 1828)
37 346042 *Lutjanus ehrenbergii* (Peters, 1869)
37 346005 *Lutjanus erythropterus* Bloch, 1790
37 346034 *Lutjanus fulviflamma* (Forsskål, 1775)
37 346043 *Lutjanus fulvus* (Schneider, 1801)
37 346028 *Lutjanus gibbus* (Forsskål, 1775)
37 346030 *Lutjanus johnii* (Bloch, 1792)
37 346044 *Lutjanus kasmira* (Forsskål, 1775)
37 346010 *Lutjanus lemniscatus* (Valenciennes, 1828)
37 346008 *Lutjanus lutjanus* Bloch, 1790
37 346007 *Lutjanus malabaricus* (Schneider, 1801)
37 346045 *Lutjanus monostigma* (Cuvier, 1828)
37 346006 *Lutjanus quinquelineatus* (Bloch, 1790)
37 346016 *Lutjanus rivulatus* (Cuvier, 1828)
37 346012 *Lutjanus russelli* (Bleeker, 1849)
37 346004 *Lutjanus sebae* (Cuvier, 1828)
37 346046 *Lutjanus semicinctus* Quoy & Gaimard, 1824

37 346057 *Lutjanus timorensis* (Quoy & Gaimard, 1824)
37 346003 *Lutjanus vitta* (Quoy & Gaimard, 1824)
37 346047 *Macolor macularis* Fowler, 1931
37 346048 *Macolor niger* (Forsskål, 1775)
37 346060 *Paracaesio kusakarii* Abe, 1960
37 346053 *Paracaesio stonei* Raj & Seeto, 1983
37 346049 *Paracaesio xanthurus* (Bleeker, 1869)
37 346054 *Pristipomoides argyrogrammicus* (Valenciennes, 1831)
37 346059 *Pristipomoides auricilla* (Jordan, Evermann & Tanaka, 1927)
37 346032 *Pristipomoides filamentosus* (Valenciennes, 1830)
37 346055 *Pristipomoides flavipinnis* Shinohara, 1963
37 346002 *Pristipomoides multidens* (Day, 1870)
37 346019 *Pristipomoides typus* Bleeker, 1852
37 346056 *Pristipomoides zonatus* (Valenciennes, 1830)
37 346052 *Symphorichthys spilurus* (Günther, 1874)
37 346017 *Symphorus nematophorus* (Bleeker, 1860)

— Commercial Groupings —

37 346914 *Etelis* spp
37 346905 *Lutjanus* spp
37 346913 *Lutjanus* spp [*L. vitta, L. carponotatus, L. lutjanus* & *L. quinquelineatus* only]
37 346911 *Lutjanus* spp [*L. malabaricus* & *L. erythropterus* only]
37 346910 *Lutjanus* spp [*L. vitta* & *L. adettii* only]
37 346901 *Pristipomoides* spp [*P. typus* & *P. multidens*]
37 346912 *Pristipomoides* spp [*P. filamentosus* & *P. multidens* only]

37 347000 **— FAMILY NEMIPTERIDAE —**
37 347025 *Nemipterus aurifilum* (Ogilby, 1910)
37 347001 *Nemipterus bathybius* Snyder, 1911
37 347004 *Nemipterus celebicus* (Bleeker, 1854)
37 347005 *Nemipterus furcosus* (Valenciennes, 1830)
37 347014 *Nemipterus hexodon* (Quoy & Gaimard, 1824)
37 347019 *Nemipterus isacanthus* (Bleeker, 1873)
37 347016 *Nemipterus marginatus* (Valenciennes, 1830)
37 347026 *Nemipterus mesoprion* (Bleeker, 1853)
37 347002 *Nemipterus nematopus* (Bleeker, 1851)
37 347003 *Nemipterus peronii* (Valenciennes, 1830)
37 347036 *Nemipterus theodorei* Ogilby, 1916
37 347009 *Nemipterus virgatus* (Houttuyn, 1782)
37 347013 *Nemipterus zysron* (Bleeker, 1856)
37 347015 *Parascolopsis eriomma* (Jordan & Richardson, 1909)
37 347011 *Parascolopsis rufomaculatus* Russell, 1986
37 347010 *Parascolopsis tanyactis* Russell, 1986
37 347027 *Pentapodus emeryii* (Richardson, 1843)
37 347012 *Pentapodus nagasakiensis* (Tanaka, 1915)
37 347028 *Pentapodus paradiseus* (Günther, 1859)
37 347007 *Pentapodus porosus* (Valenciennes, 1830)
37 347029 *Pentapodus* sp. [in Russell, 1990]
37 347022 *Pentapodus vitta* Quoy & Gaimard, 1824
37 347020 *Scaevius milii* (Bory de Saint-Vincent, 1823)
37 347030 *Scolopsis affinis* Peters, 1877
37 347031 *Scolopsis bilineatus* (Bloch, 1793)
37 347032 *Scolopsis lineatus* Quoy & Gaimard, 1824
37 347033 *Scolopsis margaritifer* (Cuvier, 1830)
37 347006 *Scolopsis monogramma* (Kuhl & van Hasselt, 1830)
37 347008 *Scolopsis taeniopterus* (Kuhl & van Hasselt, 1830)
37 347034 *Scolopsis trilineatus* Kner, 1868
37 347018 *Scolopsis vosmeri* (Bloch, 1792)
37 347035 *Scolopsis xenochrous* Günther, 1872

— Commercial Groupings —

37 347901 *Nemipterus* spp
37 347902 *Scolopsis* spp

37 348000 **— FAMILY LOBOTIDAE —**
37 348001 *Lobotes surinamensis* (Bloch, 1790)

37 349000 **— FAMILY GERREIDAE —**
37 349007 *Gerres abbreviatus* Bleeker, 1850
37 349009 *Gerres argyreus* (Bloch & Schneider, 1801)
37 349010 *Gerres australis* Castelnau, 1875
37 349011 *Gerres carinatus* Alleyne & Macleay, 1877

37 349012 *Gerres cheverti* Alleyne & Macleay, 1877
37 349013 *Gerres darnleyensis* (Ogilby, 1913)
37 349003 *Gerres filamentosus* Cuvier, 1829
37 349014 *Gerres longicaudas* Alleyne & Macleay, 1877
37 349015 *Gerres ovatus* Günther, 1859
37 349004 *Gerres oyena* (Forsskål, 1775)
37 349016 *Gerres philippinus* Günther, 1862
37 349008 *Gerres poeti* Cuvier, 1830
37 349017 *Gerres profundus* Macleay, 1878
37 349018 *Gerres rostrata* (Alleyne & Macleay, 1877)
37 349019 *Gerres splendens* De Vis, 1884
37 349005 *Gerres subfasciatus* Cuvier, 1830
37 349001 *Parequula melbournensis* (Castelnau, 1872)
37 349002 *Pentaprion longimanus* (Cantor, 1850)

37 350000 — **FAMILY HAEMULIDAE** —
37 350003 *Diagramma labiosum* Macleay, 1883
37 350001 *Hapalogenys kishinouyei* Smith & Pope, 1906
37 350017 *Plectorhinchus celebicus* Bleeker, 1873
37 350014 *Plectorhinchus chaetodontoides* (Lacépède, 1801)
37 350020 *Plectorhinchus diagrammus* (Linnaeus, 1758)
37 350007 *Plectorhinchus flavomaculatus* (Ehrenberg, 1830)
37 350012 *Plectorhinchus gibbosus* Lacépède, 1802
37 350022 *Plectorhinchus goldmanni* (Bleeker, 1853)
37 350018 *Plectorhinchus multivittatum* (Macleay, 1878)
37 350021 *Plectorhinchus obscurum* (Günther, 1871)
37 350015 *Plectorhinchus orientalis* (Bloch, 1793)
37 350023 *Plectorhinchus picus* (Cuvier, 1830)
37 350005 *Plectorhinchus polytaenia* (Bleeker, 1852)
37 350013 *Plectorhinchus schotaf* (Forsskål, 1775)
37 350010 *Plectorhinchus sordidus* (Klunzinger, 1870)
37 350009 *Pomadasys argenteus* (Forsskål, 1775)
37 350019 *Pomadasys auritus* (Cuvier, 1830)
37 350011 *Pomadasys kaakan* (Cuvier, 1830)
37 350002 *Pomadasys maculatus* (Bloch, 1797)
37 350008 *Pomadasys trifasciatus* Fowler, 1937

— Commercial Groupings —
37 350904 Haemulidae spp [except *Pomadasys* spp]
37 350903 *Plectorhinchus* spp
37 350902 *Pomadasys* spp

37 351000 — **FAMILY LETHRINIDAE** —
37 351021 *Gnathodentex aurolineatus* (Lacépède, 1802)
37 351018 *Gymnocranius audleyi* Ogilby, 1916
37 351010 *Gymnocranius elongatus* Senta, 1973
37 351022 *Gymnocranius euanus* Günther, 1879
37 351005 *Gymnocranius grandoculis* (Valenciennes, 1830)
37 351003 *Gymnocranius griseus* (Schlegel, 1844)
37 351023 *Gymnocranius* sp. [in Carpenter & Allen, 1989]
37 351024 *Lethrinus amboinensis* Bleeker, 1854
37 351013 *Lethrinus atkinsoni* Seale, 1910
37 351025 *Lethrinus erythracanthus* Valenciennes, 1830
37 351002 *Lethrinus genivittatus* Valenciennes, 1830
37 351017 *Lethrinus harak* (Forsskål, 1775)
37 351006 *Lethrinus laticaudis* Alleyne & Macleay, 1877
37 351007 *Lethrinus lentjan* (Lacépède, 1802)
37 351011 *Lethrinus microdon* (Valenciennes, 1830)
37 351009 *Lethrinus miniatus* (Bloch & Schneider, 1801)
37 351008 *Lethrinus nebulosus* (Forsskål, 1775)
37 351019 *Lethrinus obsoletus* (Forsskål, 1775)
37 351004 *Lethrinus olivaceus* Valenciennes, 1830
37 351015 *Lethrinus ornatus* Valenciennes, 1830
37 351012 *Lethrinus rubrioperculatus* Sato, 1978
37 351016 *Lethrinus semicinctus* Valenciennes, 1830
37 351001 *Lethrinus* sp. [Carpenter, pers comm]
37 351014 *Lethrinus variegatus* (Valenciennes, 1830)
37 351020 *Lethrinus xanthochilus* Klunzinger, 1870
37 351026 *Monotaxis grandoculis* (Forsskål, 1775)
37 351027 *Wattsia mossambica* (Smith, 1957)

— Commercial Groupings —
37 351901 *Gymnocranius* spp
37 351902 *Lethrinus* spp

37 353000 — **FAMILY SPARIDAE** —
37 353004 *Acanthopagrus australis* (Günther, 1859)
37 353011 *Acanthopagrus berda* (Forsskål, 1775)
37 353003 *Acanthopagrus butcheri* (Munro, 1949)
37 353012 *Acanthopagrus latus* (Houttuyn, 1782)
37 353014 *Acanthopagrus palmaris* (Whitley, 1935)
37 353015 *Allotaius spariformis* (Ogilby, 1910)
37 353006 *Argyrops spinifer* (Forsskål, 1775)
37 353016 *Chrysoblephus gibbiceps* (Valenciennes, 1830)
37 353002 *Dentex tumifrons* (Temminck & Schlegel, 1843)
37 353001 *Pagrus auratus* (Bloch & Schneider, 1801)
37 353013 *Rhabdosargus sarba* (Forsskål, 1775)

37 354000 — **FAMILY SCIAENIDAE** —
37 354001 *Argyrosomus japonicus* (Temminck & Schlegel, 1843)
37 354020 *Atractoscion aequidens* (Cuvier, 1830)
37 354012 *Atrobucca brevis* Sasaki & Kailola, 1988
37 354011 *Atrobucca nibe* (Jordan & Thompson, 1911)
37 354008 *Austronibea oedogenys* Trewavas, 1977
37 354009 *Johnius amblycephalus* (Bleeker, 1855)
37 354007 *Johnius borneensis* (Bleeker, 1850)
37 354004 *Johnius laevis* Sasaki & Kailola, 1991
37 354021 *Johnius macropterus* (Bleeker, 1853)
37 354022 *Johnius* sp. [Sasaki, pers comm]
37 354023 *Nibea microgenys* Sasaki, 1992
37 354019 *Nibea soldado* (Lacépède, 1802)
37 354024 *Nibea squamosa* Sasaki, 1992
37 354006 *Otolithes ruber* (Bloch & Schneider, 1801)
37 354003 *Protonibea diacanthus* (Lacépède, 1802)

— Commercial Groupings —
37 354903 Sciaenidae spp [*Argyrosomus japonicus* & *Protonibea diacanthus* only]

37 355000 — **FAMILY MULLIDAE** —
37 355019 *Mulloidichthys flavolineatus* (Lacépède, 1801)
37 355020 *Mulloidichthys vanicolensis* (Valenciennes, 1831)
37 355021 *Parupeneus barberinoides* (Bleeker, 1852)
37 355022 *Parupeneus barberinus* (Lacépède, 1801)
37 355023 *Parupeneus bifasciatus* (Lacépède, 1801)
37 355016 *Parupeneus chrysopleuron* (Temminck & Schlegel, 1843)
37 355024 *Parupeneus ciliatus* (Lacépède, 1801)
37 355025 *Parupeneus cyclostomus* (Lacépède, 1801)
37 355004 *Parupeneus heptacanthus* (Lacépède, 1801)
37 355005 *Parupeneus indicus* (Shaw, 1803)
37 355026 *Parupeneus multifasciatus* (Quoy & Gaimard, 1825)
37 355027 *Parupeneus pleurostigma* (Bennett, 1831)
37 355028 *Parupeneus rubescens* (Lacépède, 1801)
37 355018 *Parupeneus signatus* (Günther, 1867)
37 355006 *Parupeneus* sp. [Last]
37 355015 *Parupeneus spilurus* (Bleeker, 1854)
37 355001 *Upeneichthys lineatus* (Bloch & Schneider, 1801)
37 355030 *Upeneichthys stotti* (Hutchins, 1990)
37 355029 *Upeneichthys vlamingii* (Cuvier, 1829)
37 355010 *Upeneus asymmetricus* Lachner, 1954
37 355002 *Upeneus bensasi* (Temminck & Schlegel, 1843)
37 355009 *Upeneus luzonius* (Jordan & Seale, 1907)
37 355003 *Upeneus moluccensis* (Bleeker, 1855)
37 355008 *Upeneus* sp. 1 [in Sainsbury *et al.*, 1985]
37 355007 *Upeneus sulphureus* Cuvier, 1829
37 355013 *Upeneus sundaicus* (Bleeker, 1855)
37 355014 *Upeneus tragula* Richardson, 1846
37 355031 *Upeneus vittatus* (Forsskål, 1775)

— Commercial Groupings —
37 355900 *Parupeneus* spp

37 356000 — **FAMILY MONODACTYLIDAE** —
37 356002 *Monodactylus argenteus* (Linnaeus, 1758)
37 356001 *Schuettea scalaripinnis* Steindachner, 1866
37 356003 *Schuettea woodwardi* (Waite, 1905)

37 357000 — **FAMILY PEMPHERIDIDAE** —
37 357012 *Leptobrama muelleri* Steindachner, 1878
37 357002 *Parapriacanthus elongatus* (McCulloch, 1911)
37 357004 *Parapriacanthus ransonneti* Steindachner, 1870
37 357005 *Pempheris affinis* McCulloch, 1911
37 357006 *Pempheris analis* Waite, 1910
37 357008 *Pempheris compressa* (White, 1790)
37 357003 *Pempheris klunzingeri* McCulloch, 1911
37 357001 *Pempheris multiradiata* Klunzinger, 1880
37 357013 *Pempheris ornata* Mooi & Jubb, 1996
37 357010 *Pempheris oualensis* Cuvier, 1831
37 357011 *Pempheris schwenkii* Bleeker, 1855
37 357007 *Pempheris ypsilychnus* Mooi & Jubb, 1996

37 358000 — **FAMILY BATHYCLUPEIDAE** —
37 358001 *Bathyclupea gracilis* Fowler, 1938

37 359000 — **FAMILY TOXOTIDAE** —
37 359001 *Toxotes chatareus* (Hamilton, 1822)
37 359002 *Toxotes jaculatrix* (Pallas, 1769)
37 359003 *Toxotes lorentzi* Weber, 1911
37 359004 *Toxotes oligolepis* Bleeker, 1876

37 361000 — **FAMILY KYPHOSIDAE** —
37 361020 *Atypichthys latus* McCulloch & Waite, 1916
37 361010 *Atypichthys strigatus* (Günther, 1860)
37 361016 *Girella cyanea* Macleay, 1881
37 361006 *Girella elevata* Macleay, 1881
37 361017 *Girella tephraeops* (Richardson, 1846)
37 361007 *Girella tricuspidata* (Quoy & Gaimard, 1824)
37 361008 *Girella zebra* (Richardson, 1846)
37 361021 *Kyphosus bigibbus* (Lacépède, 1801)
37 361022 *Kyphosus cinerascens* (Forsskål, 1775)
37 361012 *Kyphosus cornelii* (Whitley, 1944)
37 361013 *Kyphosus gibsoni* Ogilby, 1912
37 361001 *Kyphosus sydneyanus* (Günther, 1886)
37 361014 *Kyphosus vaigiensis* (Quoy & Gaimard, 1825)
37 361005 *Microcanthus strigatus* (Cuvier, 1831)
37 361002 *Neatypus obliquus* Waite, 1905
37 361003 *Tilodon sexfasciatum* (Richardson, 1842)

37 361000 — **FAMILY SCORPIDIDAE** —
37 361004 *Scorpis aequipinnis* Richardson, 1848
37 361015 *Scorpis georgianus* Valenciennes, 1832
37 361009 *Scorpis lineolatus* Kner, 1865
37 361019 *Scorpis violaceus* (Hutton, 1873)

37 362000 — **FAMILY EPHIPPIDAE** —
37 362005 *Drepane punctata* (Linnaeus, 1758)
37 362002 *Platax batavianus* Cuvier, 1831
37 362007 *Platax orbicularis* (Forsskål, 1775)
37 362006 *Platax pinnatus* (Linnaeus, 1758)
37 362004 *Platax teira* (Forsskål, 1775)
37 362003 *Zabidius novemaculeatus* (McCulloch, 1916)

37 363000 — **FAMILY SCATOPHAGIDAE** —
37 363002 *Scatophagus argus* (Linnaeus, 1766)
37 363001 *Scatophagus multifasciatus* Richardson, 1846

— **Commercial Groupings** —
37 363900 *Scatophagus* spp [*S. multifasciatus* & *S. argus* only]

37 364000 — **FAMILY RHINOPRENIDAE** —
37 364001 *Rhinoprenes pentanemus* Munro, 1964

37 365000 — **FAMILY CHAETODONTIDAE** —
37 365020 *Amphichaetodon howensis* (Waite, 1903)
37 365033 *Chaetodon adiergastos* Seale, 1910
37 365012 *Chaetodon assarius* Waite, 1905
37 365013 *Chaetodon aureofasciatus* Macleay, 1878
37 365019 *Chaetodon auriga* Forsskål, 1775

37 365034 *Chaetodon baronessa* Cuvier, 1831
37 365035 *Chaetodon bennetti* Cuvier, 1831
37 365036 *Chaetodon citrinellus* Cuvier, 1831
37 365037 *Chaetodon ephippium* Cuvier, 1831
37 365038 *Chaetodon flavirostris* Günther, 1873
37 365039 *Chaetodon guentheri* Ahl, 1913
37 365040 *Chaetodon kleinii* Bloch, 1790
37 365041 *Chaetodon lineolatus* Cuvier, 1831
37 365042 *Chaetodon lunula* (Lacépède, 1803)
37 365043 *Chaetodon melannotus* Schneider, 1801
37 365044 *Chaetodon mertensii* Cuvier, 1831
37 365045 *Chaetodon meyeri* Bloch & Schneider, 1801
37 365006 *Chaetodon modestus* Schlegel, 1842
37 365046 *Chaetodon ocellicaudus* Cuvier, 1831
37 365047 *Chaetodon ornatissimus* Cuvier, 1831
37 365048 *Chaetodon oxycephalus* Bleeker, 1853
37 365049 *Chaetodon pelewensis* Kner, 1868
37 365050 *Chaetodon plebeius* Cuvier, 1831
37 365051 *Chaetodon punctatofasciatus* Cuvier, 1831
37 365052 *Chaetodon rafflesii* Bennett, 1830
37 365053 *Chaetodon rainfordi* McCulloch, 1923
37 365054 *Chaetodon reticulatus* Cuvier, 1831
37 365055 *Chaetodon semeion* Bleeker, 1855
37 365056 *Chaetodon speculum* Cuvier, 1831
37 365057 *Chaetodon tricinctus* Waite, 1901
37 365058 *Chaetodon trifascialis* Quoy & Gaimard, 1824
37 365059 *Chaetodon trifasciatus* Park, 1797
37 365060 *Chaetodon ulietensis* Cuvier, 1831
37 365061 *Chaetodon unimaculatus* Bloch, 1787
37 365062 *Chaetodon vagabundus* Linnaeus, 1758
37 365007 *Chelmon marginalis* Richardson, 1842
37 365015 *Chelmon muelleri* (Klunzinger, 1880)
37 365017 *Chelmon rostratus* (Linnaeus, 1758)
37 365066 *Chelmonops curiosus* Kuiter, 1986
37 365067 *Chelmonops howensis* (Waite, 1903)
37 365001 *Chelmonops truncatus* (Kner, 1859)
37 365018 *Coradion altivelis* McCulloch, 1916
37 365004 *Coradion chrysozonus* (Cuvier, 1831)
37 365068 *Forcipiger flavissimus* Jordan & McGregor, 1898
37 365069 *Forcipiger longirostris* (Broussonet, 1782)
37 365074 *Hemitaurichthys polylepis* (Bleeker, 1857)
37 365011 *Heniochus acuminatus* (Linnaeus, 1758)
37 365075 *Heniochus chrysostomus* Cuvier, 1831
37 365005 *Heniochus diphreutes* Jordan, 1903
37 365076 *Heniochus monoceros* Cuvier, 1831
37 365077 *Heniochus singularius* Smith & Radcliffe, 1911
37 365078 *Heniochus varius* (Cuvier, 1829)
37 365003 *Parachaetodon ocellatus* (Cuvier, 1831)

— Commercial Groupings —
37 365900 Chaetodontidae spp

37 365000 **— FAMILY POMACANTHIDAE —**
37 365016 *Apolemichthys trimaculatus* (Cuvier, 1831)
37 365021 *Centropyge aurantius* Randall & Wass, 1974
37 365022 *Centropyge bicolor* (Bloch, 1787)
37 365023 *Centropyge bispinosus* (Günther, 1860)
37 365024 *Centropyge eibli* Klausewitz, 1963
37 365025 *Centropyge flavicauda* Fraser-Brunner, 1933
37 365026 *Centropyge flavissimus* (Cuvier, 1831)
37 365027 *Centropyge heraldi* Woods & Schultz, 1953
37 365028 *Centropyge loriculus* (Günther, 1874)
37 365030 *Centropyge nox* (Bleeker, 1853)
37 365031 *Centropyge tibicen* (Cuvier, 1831)
37 365032 *Centropyge vroliki* (Bleeker, 1853)
37 365063 *Chaetodontoplus ballinae* Whitley, 1959
37 365064 *Chaetodontoplus conspicillatus* (Waite, 1900)
37 365009 *Chaetodontoplus duboulayi* (Günther, 1867)
37 365065 *Chaetodontoplus meredithi* Kuiter, 1990
37 365083 *Chaetodontoplus mesoleucus* (Bloch, 1787)
37 365008 *Chaetodontoplus personifer* (McCulloch, 1914)
37 365070 *Genicanthus lamarck* (Lacépède, 1802)
37 365071 *Genicanthus melanospilos* (Bleeker, 1857)
37 365072 *Genicanthus semicinctus* (Waite, 1900)
37 365073 *Genicanthus watanabei* (Yasuda & Tominaga, 1970)

37 365029 *Paracentropyge multifasciatus* (Smith & Radcliffe, 1911)
37 365014 *Pomacanthus imperator* (Bloch, 1787)
37 365079 *Pomacanthus navarchus* (Cuvier, 1831)
37 365080 *Pomacanthus semicirculatus* (Cuvier, 1831)
37 365010 *Pomacanthus sexstriatus* (Cuvier, 1831)
37 365081 *Pomacanthus xanthometopon* (Bleeker, 1853)
37 365082 *Pygoplites diacanthus* (Boddaert, 1772)

— Commercial Groupings —
37 365901 Pomacanthidae spp

37 366000 **— FAMILY ENOPLOSIDAE —**
37 366001 *Enoplosus armatus* (Shaw, 1790)

37 367000 **— FAMILY PENTACEROTIDAE —**
37 367011 *Evistias acutirostris* (Temminck & Schlegel, 1844)
37 367008 *Histiopterus typus* (Temminck & Schlegel, 1843)
37 367010 *Parazanclistius hutchinsi* Hardy, 1983
37 367001 *Paristiopterus gallipavo* Whitley, 1944
37 367002 *Paristiopterus labiosus* (Günther, 1871)
37 367003 *Pentaceropsis recurvirostris* (Richardson, 1845)
37 367004 *Pentaceros decacanthus* Günther, 1859
37 367009 *Pseudopentaceros richardsoni* (Smith, 1844)
37 367005 *Zanclistius elevatus* (Ramsay & Ogilby, 1888)

— Commercial Groupings —
37 367901 *Paristiopterus* spp [*P. gallipavo* & *P. labiosus* only]

37 369000 **— FAMILY OPLEGNATHIDAE —**
37 369002 *Oplegnathus woodwardi* (Waite, 1900)

37 371000 **— FAMILY CICHLIDAE —**
37 371003 *Cichlasoma nigrofasciatum* (Günther, 1867)
37 371004 *Cichlasoma octofasciatum* (Regan, 1903)
37 371001 *Oreochromis mossambicus* (Peters, 1852)
37 371002 *Tilapia mariae* Boulenger, 1899
37 371005 *Tilapia zillii* (Gervais, 1848)

37 372000 **— FAMILY POMACENTRIDAE —**
37 372003 *Abudefduf bengalensis* (Bloch, 1787)
37 372010 *Abudefduf septemfasciatus* (Cuvier, 1830)
37 372011 *Abudefduf sexfasciatus* (Lacépède, 1801)
37 372012 *Abudefduf sordidus* (Forsskål, 1775)
37 372013 *Abudefduf vaigiensis* (Quoy & Gaimard, 1825)
37 372014 *Abudefduf whitleyi* Allen & Robertson, 1974
37 372015 *Acanthochromis polyacanthus* (Bleeker, 1855)
37 372016 *Amblyglyphidodon aureus* (Cuvier, 1830)
37 372141 *Amblyglyphidodon batunai* Allen, 1995
37 372017 *Amblyglyphidodon curacao* (Bloch, 1787)
37 372018 *Amblyglyphidodon leucogaster* (Bleeker, 1847)
37 372019 *Amblypomacentrus breviceps* (Schlegel & Müller, 1839)
37 372020 *Amphiprion akindynos* Allen, 1972
37 372021 *Amphiprion chrysopterus* Cuvier, 1830
37 372007 *Amphiprion clarkii* (Bennett, 1830)
37 372022 *Amphiprion latezonatus* Waite, 1900
37 372023 *Amphiprion mccullochi* Whitley, 1929
37 372024 *Amphiprion melanopus* Bleeker, 1852
37 372025 *Amphiprion ocellaris* Cuvier, 1830
37 372026 *Amphiprion percula* (Lacépède, 1802)
37 372027 *Amphiprion perideraion* Bleeker, 1855
37 372138 *Amphiprion polymnus* (Linnaeus, 1758)
37 372028 *Amphiprion rubrocinctus* Richardson, 1842
37 372029 *Amphiprion sandaracinos* Allen, 1972
37 372030 *Cheiloprion labiatus* (Day, 1877)
37 372031 *Chromis abyssicola* Allen & Randall, 1985
37 372032 *Chromis agilis* Smith, 1960
37 372033 *Chromis alpha* Randall, 1988
37 372034 *Chromis amboinensis* (Bleeker, 1873)
37 372035 *Chromis analis* (Cuvier, 1830)
37 372036 *Chromis atripectoralis* Welander & Schultz, 1951
37 372037 *Chromis atripes* Fowler & Bean, 1928
37 372038 *Chromis chrysura* (Bliss, 1883)
37 372039 *Chromis cinerascens* (Cuvier, 1830)
37 372040 *Chromis delta* Randall, 1988

37 372041 *Chromis elerae* Fowler & Bean, 1928
37 372042 *Chromis flavomaculata* Kamohara, 1960
37 372004 *Chromis fumea* (Tanaka, 1917)
37 372002 *Chromis hypsilepis* (Günther, 1867)
37 372043 *Chromis iomelas* Jordan & Seale, 1906
37 372044 *Chromis klunzingeri* Whitley, 1929
37 372045 *Chromis lepidolepis* Bleeker, 1877
37 372046 *Chromis lineata* Fowler & Bean, 1928
37 372047 *Chromis margaritifer* Fowler, 1946
37 372048 *Chromis megalopsis* Allen, 1976
37 372049 *Chromis nitida* (Whitley, 1928)
37 372050 *Chromis retrofasciata* Weber, 1913
37 372051 *Chromis ternatensis* (Bleeker, 1856)
37 372052 *Chromis vanderbilti* (Fowler, 1941)
37 372053 *Chromis viridis* (Cuvier, 1830)
37 372054 *Chromis weberi* Fowler & Bean, 1928
37 372055 *Chromis westaustralis* Allen, 1976
37 372056 *Chromis xanthochira* (Bleeker, 1851)
37 372057 *Chromis xanthura* (Bleeker, 1854)
37 372058 *Chrysiptera biocellata* (Quoy & Gaimard, 1824)
37 372059 *Chrysiptera caeruleolineata* (Allen, 1973)
37 372060 *Chrysiptera cyanea* (Quoy & Gaimard, 1824)
37 372061 *Chrysiptera flavipinnis* (Allen & Robertson, 1974)
37 372062 *Chrysiptera glauca* (Cuvier, 1830)
37 372063 *Chrysiptera hemicyanea* (Weber, 1913)
37 372064 *Chrysiptera leucopoma* (Lesson, 1830)
37 372065 *Chrysiptera notialis* (Allen, 1975)
37 372066 *Chrysiptera rex* (Snyder, 1909)
37 372067 *Chrysiptera rollandi* (Whitley, 1961)
37 372068 *Chrysiptera starcki* (Allen, 1973)
37 372069 *Chrysiptera talboti* (Allen, 1975)
37 372070 *Chrysiptera taupou* (Jordan & Seale, 1906)
37 372071 *Chrysiptera tricincta* (Allen & Randall, 1974)
37 372072 *Chrysiptera unimaculata* (Cuvier, 1830)
37 372073 *Dascyllus aruanus* (Linnaeus, 1758)
37 372009 *Dascyllus melanurus* Bleeker, 1854
37 372074 *Dascyllus reticulatus* (Richardson, 1846)
37 372075 *Dascyllus trimaculatus* (Rüppell, 1829)
37 372139 *Dischistodus chrysopoecilus* (Schlegel & Müller, 1839)
37 372076 *Dischistodus fasciatus* (Cuvier, 1830)
37 372077 *Dischistodus melanotus* (Bleeker, 1857)
37 372078 *Dischistodus perspicillatus* (Cuvier, 1830)
37 372079 *Dischistodus prosopotaenia* (Bleeker, 1852)
37 372080 *Dischistodus pseudochrysopoecilus* (Allen & Robertson, 1974)
37 372081 *Hemiglyphidodon plagiometopon* (Bleeker, 1852)
37 372082 *Lepidozygus tapeinosoma* (Bleeker, 1856)
37 372083 *Mecaenichthys immaculatus* (Ogilby, 1885)
37 372084 *Neoglyphidodon melas* (Cuvier, 1830)
37 372085 *Neoglyphidodon nigroris* (Cuvier, 1830)
37 372137 *Neoglyphidodon oxyodon* (Bleeker, 1857)
37 372086 *Neoglyphidodon polyacanthus* (Ogilby, 1889)
37 372087 *Neopomacentrus azysron* (Bleeker, 1877)
37 372088 *Neopomacentrus bankieri* (Richardson, 1846)
37 372089 *Neopomacentrus cyanomos* (Bleeker, 1856)
37 372090 *Neopomacentrus filamentosus* (Macleay, 1883)
37 372140 *Neopomacentrus taeniurus* (Bleeker, 1856)
37 372091 *Parma alboscapularis* Allen & Hoese, 1975
37 372092 *Parma bicolor* Allen & Larson, 1979
37 372093 *Parma mccullochi* Whitley, 1929
37 372005 *Parma microlepis* Günther, 1862
37 372094 *Parma occidentalis* Allen & Hoese, 1975
37 372095 *Parma oligolepis* Whitley, 1929
37 372096 *Parma polylepis* Günther, 1862
37 372097 *Parma unifasciata* (Steindachner, 1867)
37 372006 *Parma victoriae* (Günther, 1863)
37 372098 *Plectroglyphidodon dickii* (Liénard, 1839)
37 372099 *Plectroglyphidodon imparipennis* (Vaillant & Sauvage, 1875)
37 372100 *Plectroglyphidodon johnstonianus* Fowler & Ball, 1924
37 372101 *Plectroglyphidodon lacrymatus* (Quoy & Gaimard, 1824)
37 372102 *Plectroglyphidodon leucozonus* (Bleeker, 1859)
37 372103 *Plectroglyphidodon phoenixensis* (Schultz, 1943)
37 372104 *Pomacentrus adelus* Allen, 1991
37 372106 *Pomacentrus amboinensis* Bleeker, 1868
37 372107 *Pomacentrus australis* Allen & Robertson, 1974
37 372108 *Pomacentrus bankanensis* Bleeker, 1853
37 372109 *Pomacentrus brachialis* Cuvier, 1830

37 372110 *Pomacentrus chrysurus* Cuvier, 1830
37 372111 *Pomacentrus coelestis* Jordan & Starks, 1901
37 372112 *Pomacentrus grammorhynchus* Fowler, 1918
37 372113 *Pomacentrus imitator* (Whitley, 1964)
37 372114 *Pomacentrus lepidogenys* Fowler & Bean, 1928
37 372116 *Pomacentrus limosus* Allen, 1992
37 372115 *Pomacentrus littoralis* Cuvier, 1830
37 372117 *Pomacentrus milleri* Taylor, 1964
37 372118 *Pomacentrus moluccensis* Bleeker, 1853
37 372119 *Pomacentrus nagasakiensis* Tanaka, 1917
37 372120 *Pomacentrus nigromanus* Weber, 1913
37 372121 *Pomacentrus nigromarginatus* Allen, 1973
37 372122 *Pomacentrus pavo* (Bloch, 1787)
37 372123 *Pomacentrus philippinus* Evermann & Seale, 1907
37 372124 *Pomacentrus reidi* Fowler & Bean, 1928
37 372125 *Pomacentrus tripunctatus* Cuvier, 1830
37 372126 *Pomacentrus vaiuli* Jordan & Seale, 1906
37 372127 *Pomacentrus wardi* Whitley, 1927
37 372128 *Pomachromis richardsoni* (Snyder, 1909)
37 372129 *Premnas biaculeatus* (Bloch, 1790)
37 372001 *Pristotis jerdoni* (Day, 1873)
37 372130 *Stegastes albifasciatus* (Schlegel & Müller, 1839)
37 372131 *Stegastes apicalis* (De Vis, 1885)
37 372132 *Stegastes fasciolatus* (Ogilby, 1889)
37 372133 *Stegastes gascoynei* (Whitley, 1964)
37 372134 *Stegastes lividus* (Bloch & Schneider, 1801)
37 372135 *Stegastes nigricans* (Lacépède, 1801)
37 372136 *Stegastes obreptus* (Whitley, 1948)

37 373000 — **FAMILY GADOPSIDAE** —
37 373002 *Gadopsis bispinosus* Sanger, 1984
37 373001 *Gadopsis marmoratus* Richardson, 1848

37 374000 — **FAMILY CIRRHITIDAE** —
37 374002 *Amblycirrhitus bimacula* Jenkins, 1903
37 374001 *Cirrhitichthys aprinus* (Cuvier, 1829)
37 374003 *Cirrhitichthys falco* Randall, 1963
37 374004 *Cirrhitichthys oxycephalus* (Bleeker, 1855)
37 374005 *Cirrhitus pinnulatus* (Schneider, 1801)
37 374006 *Cyprinocirrhites polyactis* (Bleeker, 1875)
37 374007 *Neocirrhites armatus* Castelnau, 1873
37 374008 *Oxycirrhites typus* Bleeker, 1857
37 374009 *Paracirrhites arcatus* (Cuvier, 1829)
37 374010 *Paracirrhites forsteri* (Schneider, 1801)
37 374011 *Paracirrhites hemistictus* (Günther, 1874)

37 375000 — **FAMILY CHIRONEMIDAE** —
37 375003 *Chironemus georgianus* Cuvier, 1829
37 375001 *Chironemus marmoratus* Günther, 1860
37 375004 *Chironemus microlepis* Waite, 1916
37 375002 *Threpterius maculosus* Richardson, 1850

37 376000 — **FAMILY APLODACTYLIDAE** —
37 376001 *Aplodactylus arctidens* Richardson, 1839
37 376003 *Aplodactylus etheridgii* (Ogilby, 1889)
37 376004 *Aplodactylus westralis* Russell, 1987
37 376002 *Crinodus lophodon* (Günther, 1859)

37 377000 — **FAMILY CHEILODACTYLIDAE** —
37 377011 *Cheilodactylus ephippium* McCulloch & Waite, 1916
37 377009 *Cheilodactylus fuscus* Castelnau, 1879
37 377010 *Cheilodactylus gibbosus* Richardson, 1841
37 377001 *Cheilodactylus nigripes* Richardson, 1850
37 377012 *Cheilodactylus rubrolabiatus* Allen & Heemstra, 1976
37 377006 *Cheilodactylus spectabilis* (Hutton, 1872)
37 377008 *Cheilodactylus vestitus* (Castelnau, 1879)
37 377013 *Cheilodactylus vittatus* Garrett, 1863
37 377005 *Dactylophora nigricans* (Richardson, 1850)
37 377002 *Nemadactylus douglasii* (Hector, 1875)
37 377003 *Nemadactylus macropterus* (Bloch & Schneider, 1801)
37 377014 *Nemadactylus* sp. [see Smith *et al.*, 1996]
37 377004 *Nemadactylus valenciennesi* (Whitley, 1937)

— Commercial Groupings —

37 377901 *Nemadactylus* spp

37 378000 **— FAMILY LATRIDIDAE —**
37 378003 *Latridopsis ciliaris* (Bloch & Schneider, 1801)
37 378002 *Latridopsis forsteri* (Castelnau, 1872)
37 378001 *Latris lineata* (Schneider, 1801)
37 378004 *Mendosoma lineatum* Guichenot, 1848

— Commercial Groupings —

37 378900 *Latridopsis* spp [*L. forsteri & L. ciliaris* only]

37 380000 **— FAMILY CEPOLIDAE —**
37 380002 *Acanthocepola abbreviata* (Valenciennes, 1835)
37 380003 *Acanthocepola krusensterni* (Temminck & Schlegel, 1845)
37 380004 *Acanthocepola limbata* (Valenciennes, 1835)
37 380005 *Acanthocepola* sp. [in Sainsbury *et al.*, 1985]
37 380001 *Cepola australis* Ogilby, 1899
37 380006 *Owstonia maccullochi* Whitley, 1934
37 380007 *Owstonia pectinifer* (Myers, 1939)
37 380008 *Owstonia totomiensis* Tanaka, 1908

37 381000 **— FAMILY MUGILIDAE —**
37 381001 *Aldrichetta forsteri* (Valenciennes, 1836)
37 381012 *Crenimugil crenilabrus* (Forsskål, 1775)
37 381013 *Crenimugil labiosus* (Valenciennes, 1836)
37 381014 *Liza alata* (Steindachner, 1892)
37 381004 *Liza argentea* (Quoy & Gaimard, 1825)
37 381015 *Liza parmata* (Cantor, 1850)
37 381007 *Liza subviridis* (Valenciennes, 1836)
37 381008 *Liza vaigiensis* (Quoy & Gaimard, 1824)
37 381002 *Mugil cephalus* Linnaeus, 1758
37 381009 *Mugil georgii* Ogilby, 1897
37 381003 *Myxus elongatus* Günther, 1861
37 381011 *Myxus petardi* (Castelnau, 1875)
37 381016 *Rhinomugil nasutus* (De Vis, 1883)
37 381010 *Valamugil buchanani* (Bleeker, 1853)
37 381006 *Valamugil cunnesius* (Valenciennes, 1836)
37 381017 *Valamugil seheli* (Forsskål, 1775)

37 382000 **— FAMILY SPHYRAENIDAE —**
37 382003 *Sphyraena acutipinnis* Day, 1876
37 382008 *Sphyraena barracuda* (Walbaum, 1792)
37 382010 *Sphyraena dentatus* Saville-Kent, 1893
37 382007 *Sphyraena flavicauda* Rüppell, 1835
37 382005 *Sphyraena forsteri* Cuvier, 1829
37 382004 *Sphyraena jello* Cuvier, 1829
37 382002 *Sphyraena novaehollandiae* Günther, 1860
37 382001 *Sphyraena obtusata* Cuvier, 1829
37 382006 *Sphyraena putnamiae* Jordan & Seale, 1905
37 382009 *Sphyraena qenie* Klunzinger, 1870

— Commercial Groupings —

37 382901 *Sphyraena* spp

37 383000 **— FAMILY POLYNEMIDAE —**
37 383004 *Eleutheronema tetradactylum* (Shaw, 1804)
37 383007 *Filimanus heptadactyla* (Cuvier, 1829)
37 383012 *Filimanus sealei* (Jordan & Richardson, 1910)
37 383011 *Parapolynemus verekeri* (Saville-Kent, 1889)
37 383008 *Polydactylus indicus* (Shaw, 1804)
37 383002 *Polydactylus multiradiatus* (Günther, 1860)
37 383001 *Polydactylus nigripinnis* Munro, 1964
37 383009 *Polydactylus plebius* (Broussonet, 1782)
37 383010 *Polydactylus sexfilis* (Valenciennes, 1831)
37 383005 *Polydactylus sheridani* (Macleay, 1884)

— Commercial Groupings —

37 383902 Polynemidae spp [*Eleutheronema tetradactylum & Polydactylus macrochir* only]

— Imported Species —

37 383790 *Polydactylus microstoma* (Bleeker, 1851)

37 384000 **— FAMILY LABRIDAE —**
37 384002 *Achoerodus gouldii* (Richardson, 1843)
37 384043 *Achoerodus viridis* (Steindachner, 1866)
37 384045 *Anampses caeruleopunctatus* Rüppell, 1829
37 384046 *Anampses elegans* Ogilby, 1889
37 384047 *Anampses femininus* Randall, 1972
37 384048 *Anampses geographicus* Valenciennes, 1840
37 384016 *Anampses lennardi* Scott, 1959
37 384180 *Anampses melanurus* Bleeker, 1857
37 384049 *Anampses meleagrides* Valenciennes, 1840
37 384050 *Anampses neoguinaicus* Bleeker, 1878
37 384051 *Anampses twistii* Bleeker, 1856
37 384025 *Austrolabrus maculatus* (Macleay, 1881)
37 384052 *Bodianus anthioides* (Bennett, 1831)
37 384053 *Bodianus axillaris* (Bennett, 1832)
37 384054 *Bodianus bilunulatus* (Lacépède, 1801)
37 384055 *Bodianus bimaculatus* Allen, 1973
37 384056 *Bodianus diana* (Lacépède, 1801)
37 384057 *Bodianus frenchii* (Klunzinger, 1880)
37 384058 *Bodianus izuensis* Araga & Yoshino, 1975
37 384059 *Bodianus loxozonus* (Snyder, 1908)
37 384060 *Bodianus mesothorax* (Bloch & Schneider, 1801)
37 384007 *Bodianus perditio* (Quoy & Gaimard, 1834)
37 384035 *Bodianus* sp. [in Last *et al.*, 1983]
37 384062 *Bodianus* sp. [Gomon, pers comm]
37 384061 *Bodianus unimaculatus* Günther, 1862
37 384001 *Bodianus vulpinus* (Richardson, 1850)
37 384064 *Cheilinus chlorourus* (Bloch, 1791)
37 384066 *Cheilinus fasciatus* (Bloch, 1791)
37 384067 *Cheilinus oxycephalus* Bleeker, 1853
37 384044 *Cheilinus trilobatus* Lacépède, 1801
37 384038 *Cheilinus undulatus* Rüppell, 1835
37 384070 *Cheilio inermis* (Forsskål, 1775)
37 384071 *Choerodon anchorago* (Bloch, 1791)
37 384005 *Choerodon cauteroma* Gomon & Allen, 1987
37 384004 *Choerodon cephalotes* (Castelnau, 1875)
37 384072 *Choerodon cyanodus* (Richardson, 1843)
37 384073 *Choerodon fasciatus* (Günther, 1867)
37 384074 *Choerodon frenatus* Ogilby, 1910
37 384075 *Choerodon graphicus* (De Vis, 1885)
37 384076 *Choerodon japonicus* (Kamohara, 1958)
37 384077 *Choerodon jordani* (Snyder, 1908)
37 384008 *Choerodon monostigma* Ogilby, 1910
37 384039 *Choerodon rubescens* (Günther, 1862)
37 384010 *Choerodon schoenleinii* (Valenciennes, 1839)
37 384013 *Choerodon* sp. [Gomon, pers comm]
37 384009 *Choerodon sugillatum* Gomon, 1987
37 384042 *Choerodon venustus* (De Vis, 1884)
37 384006 *Choerodon vitta* Ogilby, 1910
37 384011 *Choerodon zamboangae* (Seale & Bean, 1907)
37 384079 *Cirrhilabrus cyanopleura* (Bleeker, 1851)
37 384080 *Cirrhilabrus exquisitus* Smith, 1957
37 384081 *Cirrhilabrus laboutei* Randall & Lubbock, 1982
37 384082 *Cirrhilabrus lineatus* Randall & Lubbock, 1982
37 384083 *Cirrhilabrus punctatus* Randall & Kuiter, 1989
37 384084 *Cirrhilabrus scottorum* Randall & Pyle, 1989
37 384086 *Cirrhilabrus* sp. [in Hutchins & Swainston, 1986]
37 384085 *Cirrhilabrus temminckii* Bleeker, 1853
37 384087 *Conniella apterygia* Allen, 1983
37 384088 *Coris auricularis* (Valenciennes, 1839)
37 384089 *Coris aurilineata* Randall & Kuiter, 1982
37 384090 *Coris aygula* Lacépède, 1801
37 384098 *Coris batuensis* (Bleeker, 1856)
37 384091 *Coris bulbifrons* Randall & Kuiter, 1982
37 384092 *Coris caudimacula* (Quoy & Gaimard, 1824)
37 384093 *Coris dorsomaculata* Fowler, 1908
37 384094 *Coris gaimard* (Quoy & Gaimard, 1824)
37 384095 *Coris picta* (Bloch & Schneider, 1801)
37 384096 *Coris pictoides* Randall & Kuiter, 1982
37 384097 *Coris sandageri* (Hector, 1884)
37 384099 *Cymolutes praetextatus* (Quoy & Gaimard, 1834)
37 384100 *Cymolutes torquatus* Valenciennes, 1840
37 384101 *Decodon pacificus* (Kamohara, 1952)
37 384102 *Diproctacanthus xanthurus* (Bleeker, 1856)
37 384103 *Dotalabrus alleni* Russell, 1988

37 384018 *Dotalabrus aurantiacus* (Castelnau, 1872)
37 384104 *Epibulus insidiator* (Pallas, 1770)
37 384105 *Eupetrichthys angustipes* Ramsay & Ogilby, 1888
37 384106 *Gomphosus varius* Lacépède, 1801
37 384107 *Halichoeres biocellatus* Schultz, 1960
37 384108 *Halichoeres brownfieldi* (Whitley, 1945)
37 384109 *Halichoeres chloropterus* (Bloch, 1791)
37 384110 *Halichoeres chrysus* Randall, 1981
37 384037 *Halichoeres dussumieri* (Valenciennes, 1839)
37 384112 *Halichoeres hortulanus* (Lacépède, 1801)
37 384113 *Halichoeres margaritaceus* (Valenciennes, 1839)
37 384114 *Halichoeres marginatus* Rüppell, 1835
37 384115 *Halichoeres melanochir* Fowler & Bean, 1928
37 384032 *Halichoeres melanurus* (Bleeker, 1851)
37 384116 *Halichoeres melasmapomus* Randall, 1980
37 384117 *Halichoeres miniatus* (Valenciennes, 1839)
37 384118 *Halichoeres nebulosus* (Valenciennes, 1839)
37 384119 *Halichoeres ornatissimus* (Garrett, 1863)
37 384120 *Halichoeres prosopeion* (Bleeker, 1853)
37 384121 *Halichoeres scapularis* (Bennett, 1831)
37 384122 *Halichoeres trimaculatus* (Quoy & Gaimard, 1834)
37 384123 *Halichoeres zeylonicus* (Bennett, 1832)
37 384124 *Hemigymnus fasciatus* (Bloch, 1792)
37 384125 *Hemigymnus melapterus* (Bloch, 1791)
37 384126 *Hologymnosus annulatus* (Lacépède, 1801)
37 384127 *Hologymnosus doliatus* (Lacépède, 1801)
37 384128 *Hologymnosus longipes* (Günther, 1862)
37 384129 *Labrichthys unilineatus* (Guichenot, 1847)
37 384130 *Labroides bicolor* Fowler & Bean, 1928
37 384028 *Labroides dimidiatus* (Valenciennes, 1839)
37 384131 *Labroides pectoralis* Randall & Springer, 1975
37 384132 *Labropsis australis* Randall, 1981
37 384181 *Labropsis manabei* Schmidt, 1930
37 384133 *Labropsis xanthonota* Randall, 1981
37 384027 *Leptojulis cyanopleura* (Bleeker, 1853)
37 384134 *Macropharyngodon choati* Randall, 1978
37 384135 *Macropharyngodon kuiteri* Randall, 1978
37 384136 *Macropharyngodon meleagris* (Valenciennes, 1839)
37 384137 *Macropharyngodon negrosensis* Herre, 1932
37 384138 *Macropharyngodon ornatus* Randall, 1978
37 384021 *Notolabrus fucicola* (Richardson, 1840)
37 384041 *Notolabrus gymnogenis* (Günther, 1862)
37 384139 *Notolabrus inscriptus* (Richardson, 1848)
37 384022 *Notolabrus parilus* (Richardson, 1850)
37 384003 *Notolabrus tetricus* (Richardson, 1840)
37 384182 *Novaculichthys macrolepidotus* (Bloch, 1791)
37 384140 *Novaculichthys taeniourus* (Lacépède, 1801)
37 384040 *Ophthalmolepis lineolatus* Valenciennes, 1839
37 384063 *Oxycheilinus bimaculatus* (Valenciennes, 1840)
37 384179 *Oxycheilinus celebicus* (Bleeker, 1853)
37 384065 *Oxycheilinus digrammus* (Lacépède, 1801)
37 384030 *Oxycheilinus orientalis* (Günther, 1862)
37 384069 *Oxycheilinus* sp. [Gomon, unpubl.]
37 384068 *Oxycheilinus unifasciatus* (Streets, 1877)
37 384020 *Pictilabrus laticlavius* (Richardson, 1839)
37 384141 *Pictilabrus viridis* Russell, 1988
37 384142 *Pseudocheilinus evanidus* Jordan & Evermann, 1903
37 384143 *Pseudocheilinus hexataenia* (Bleeker, 1857)
37 384144 *Pseudocheilinus octotaenia* Jenkins, 1900
37 384145 *Pseudocoris yamashiroi* (Schmidt, 1930)
37 384146 *Pseudodax moluccanus* (Valenciennes, 1839)
37 384147 *Pseudojuloides cerasinus* (Snyder, 1904)
37 384148 *Pseudojuloides elongatus* Ayling & Russell, 1977
37 384149 *Pseudolabrus biserialis* (Klunzinger, 1880)
37 384150 *Pseudolabrus guentheri* Bleeker, 1862
37 384151 *Pseudolabrus luculentus* (Richardson, 1848)
37 384023 *Pseudolabrus psittaculus* (Richardson, 1840)
37 384033 *Pteragogus cryptus* Randall, 1981
37 384153 *Pteragogus enneacanthus* (Bleeker, 1853)
37 384154 *Stethojulis bandanensis* (Bleeker, 1851)
37 384155 *Stethojulis interrupta* (Bleeker, 1851)
37 384156 *Stethojulis strigiventer* (Bennett, 1832)
37 384157 *Stethojulis trilineata* (Bloch & Schneider, 1801)
37 384158 *Suezichthys arquatus* Russell, 1985
37 384159 *Suezichthys aylingi* Russell, 1985
37 384160 *Suezichthys bifurcatus* Russell, 1986

37 384161 *Suezichthys cyanolaemus* Russell, 1985
37 384162 *Suezichthys devisi* Whitley, 1941
37 384163 *Suezichthys notatus* (Kamohara, 1958)
37 384026 *Suezichthys soelae* Russell, 1985
37 384164 *Thalassoma amblycephalum* (Bleeker, 1856)
37 384165 *Thalassoma hardwickii* (Bennett, 1828)
37 384166 *Thalassoma jansenii* (Bleeker, 1856)
37 384167 *Thalassoma lunare* (Linnaeus, 1758)
37 384168 *Thalassoma lutescens* (Lay & Bennett, 1839)
37 384169 *Thalassoma purpureum* (Forsskål, 1775)
37 384170 *Thalassoma quinquevittatum* (Lay & Bennett, 1839)
37 384171 *Thalassoma septemfasciatum* Scott, 1959
37 384172 *Thalassoma trilobatum* (Lacépède, 1801)
37 384173 *Wetmorella albofasciata* Schultz & Marshall, 1954
37 384174 *Wetmorella nigropinnata* (Seale, 1901)
37 384175 *Xenojulis margaritaceous* (Macleay, 1884)
37 384014 *Xiphocheilus typus* Bleeker, 1856
37 384176 *Xyrichtys aneitensis* (Günther, 1862)
37 384017 *Xyrichtys dea* Temminck & Schlegel, 1845
37 384012 *Xyrichtys jacksonensis* (Ramsay, 1881)
37 384177 *Xyrichtys pavo* Valenciennes, 1840
37 384178 *Xyrichtys pentadactylus* (Linnaeus, 1758)

— Commercial Groupings —
37 384903 *Cheilinus* spp [*C. trilobatus* & *C. undulatus* only]
37 384902 *Choerodon* spp [*C. schoenleinii, C. cephalotes* & *C. venustus* only]
37 384901 Labridae spp [except *Cheilinus trilobatus*]

37 385000 **— FAMILY ODACIDAE —**
37 385009 *Haletta semifasciata* (Valenciennes, 1840)
37 385005 *Neoodax balteatus* (Valenciennes, 1840)
37 385010 *Odax acroptilus* (Richardson, 1846)
37 385001 *Odax cyanomelas* (Richardson, 1850)
37 385008 *Siphonognathus argyrophanes* Richardson, 1858
37 385004 *Siphonognathus attenuatus* (Ogilby, 1897)
37 385006 *Siphonognathus beddomei* (Johnston, 1885)
37 385011 *Siphonognathus caninus* (Scott, 1976)
37 385007 *Siphonognathus radiatus* (Quoy & Gaimard, 1834)
37 385012 *Siphonognathus tanyourus* Gomon & Paxton, 1985

37 386000 **— FAMILY SCARIDAE —**
37 386004 *Bolbometopon muricatum* (Valenciennes, 1840)
37 386005 *Calotomus carolinus* (Valenciennes, 1840)
37 386006 *Calotomus spinidens* (Quoy & Gaimard, 1824)
37 386007 *Cetoscarus bicolor* (Rüppell, 1829)
37 386008 *Hipposcarus longiceps* (Valenciennes, 1840)
37 386009 *Leptoscarus vaigiensis* (Quoy & Gaimard, 1824)
37 386010 *Scarus altipinnis* (Steindachner, 1879)
37 386032 *Scarus atropectoralis* Schultz, 1958
37 386011 *Scarus bleekeri* (de Beaufort, 1940)
37 386012 *Scarus chameleon* Choat & Randall, 1986
37 386013 *Scarus dimidiatus* Bleeker, 1859
37 386034 *Scarus fasciatus* Valenciennes, 1839
37 386014 *Scarus flavipectoralis* Schultz, 1958
37 386015 *Scarus forsteni* (Bleeker, 1861)
37 386016 *Scarus frenatus* Lacépède, 1801
37 386017 *Scarus frontalis* Valenciennes, 1840
37 386001 *Scarus ghobban* Forsskål, 1775
37 386018 *Scarus globiceps* Valenciennes, 1840
37 386019 *Scarus longipinnis* Randall & Choat, 1980
37 386020 *Scarus microrhinos* Bleeker, 1854
37 386021 *Scarus niger* Forsskål, 1775
37 386033 *Scarus oedema* (Snyder, 1909)
37 386022 *Scarus oviceps* Valenciennes, 1840
37 386023 *Scarus prasiognathos* Valenciennes, 1839
37 386024 *Scarus psittacus* Forsskål, 1775
37 386025 *Scarus pyrrhurus* (Jordan & Seale, 1906)
37 386026 *Scarus quoyi* Valenciennes, 1840
37 386027 *Scarus rivulatus* Valenciennes, 1840
37 386028 *Scarus rubroviolaceus* Bleeker, 1847
37 386035 *Scarus scaber* Valenciennes, 1840
37 386029 *Scarus schlegeli* (Bleeker, 1861)
37 386030 *Scarus sordidus* Forsskål, 1775
37 386031 *Scarus spinus* (Kner, 1868)
37 386036 *Scarus tricolor* Bleeker, 1849

37 388000 **— FAMILY OPISTOGNATHIDAE —**
37 388003 *Opistognathus darwiniensis* Macleay, 1878
37 388004 *Opistognathus eximius* Ogilby, 1908

37 388002 *Opistognathus inornatus* Ramsay & Ogilby, 1887
37 388005 *Opistognathus jacksoniensis* (Macleay, 1881)
37 388001 *Opistognathus latitabundus* (Whitley, 1937)
37 388006 *Opistognathus papuensis* (Bleeker, 1868)
37 388008 *Opistognathus reticulatus* (McKay, 1969)
37 388011 *Opistognathus* sp. [in Allen & Swainston, 1988]
37 388009 *Stalix flavida* Smith-Vaniz, 1989
37 388010 *Stalix histrio* Jordan & Snyder, 1902

37 390000 — **FAMILY PINGUIPEDIDAE** —
37 390006 *Parapercis alboguttata* (Günther, 1872)
37 390001 *Parapercis allporti* (Günther, 1876)
37 390012 *Parapercis binivirgata* (Waite, 1904)
37 390013 *Parapercis clathrata* Ogilby, 1911
37 390010 *Parapercis cylindrica* (Bloch, 1797)
37 390014 *Parapercis diplospilus* Gomon, 1981
37 390008 *Parapercis gushikeni* Yoshino, 1975
37 390004 *Parapercis haackei* (Steindachner, 1884)
37 390011 *Parapercis hexophtalma* (Cuvier, 1829)
37 390009 *Parapercis macrophthalma* (Pietschmann, 1911)
37 390015 *Parapercis millepunctata* (Günther, 1860)
37 390007 *Parapercis mimaseana* (Kamohara, 1937)
37 390016 *Parapercis multiplicata* Randall, 1984
37 390005 *Parapercis nebulosa* (Quoy & Gaimard, 1825)
37 390021 *Parapercis polyophthalma* (Cuvier, 1829)
37 390002 *Parapercis ramsayi* Steindachner, 1884
37 390017 *Parapercis schauinslandi* (Steindachner, 1900)
37 390018 *Parapercis snyderi* Jordan & Starks, 1905
37 390022 *Parapercis somaliensis* Schultz, 1968
37 390020 *Parapercis* sp. [in Gloerfelt-Tarp & Kailola, 1984]
37 390019 *Parapercis stricticeps* (De Vis, 1884)

— **Imported Species** —
37 390790 *Parapercis colias* (Bloch & Schneider, 1801)

37 393000 — **FAMILY PERCOPHIDAE** —
37 393013 *Bembrops caudimacula* Steindachner, 1876
37 393012 *Bembrops curvatura* Okada & Suzuki, 1952
37 393005 *Bembrops filifera* Gilbert, 1905
37 393001 *Bembrops platyrhynchus* (Alcock, 1894)
37 393007 *Branchiopsaron ozawai* McKay, 1971
37 393003 *Chrionema chlorotaenia* McKay, 1971
37 393002 *Chrionema* sp. [in NW Shelf Guide, CSIRO, unpubl.]
37 393008 *Enigmapercis reducta* Whitley, 1936
37 393009 *Enigmapercis* sp. [in AMS collection]
37 393004 *Pteropsaron* sp. [Last]
37 393010 *Spinapsaron barbatus* Okamura & Kishida, 1963
37 393011 *Squamicreedia obtusa* Rendahl, 1921

37 394000 — **FAMILY TRICHONOTIDAE** —
37 394001 *Trichonotus setiger* (Bloch & Schneider, 1801)
37 394002 *Trichonotus* sp. [in Randall *et al.*, 1990]

37 395000 — **FAMILY CREEDIIDAE** —
37 395002 *Creedia alleni* Nelson, 1983
37 395001 *Creedia haswelli* (Ramsay, 1881)
37 395003 *Creedia partimsqumigera* Nelson, 1983
37 395004 *Limnichthys donaldsoni* Schultz, 1960
37 395005 *Limnichthys fasciatus* Waite, 1904
37 395006 *Schizochirus insolens* Waite, 1904

37 397000 — **FAMILY PHOLIDICHTHYIDAE** —
37 397001 *Pholidichthys leucotaenia* Bleeker, 1856

37 398000 — **FAMILY LEPTOSCOPIDAE** —
37 398002 *Crapatalus munroi* Last & Edgar, 1987
37 398001 *Lesueurina platycephala* Fowler, 1907
37 398003 *Lesueurina* sp. [see Neira & Gaughan, 1989]

37 400000 — **FAMILY URANOSCOPIDAE** —
37 400019 *Gnathagnus cribratus* Kishimoto, 1989
37 400020 *Gnathagnus elongatus australiensis* Kishimoto, 1989
37 400001 *Gnathagnus innotabilis* Waite, 1904
37 400002 *Ichthyscopus barbatus* Mees, 1960
37 400010 *Ichthyscopus fasciatus* Haysom, 1957
37 400012 *Ichthyscopus insperatus* Mees, 1960
37 400021 *Ichthyscopus lebeck* (Bloch & Schneider, 1801)
37 400022 *Ichthyscopus sannio* Whitley, 1936
37 400006 *Ichthyscopus spinosus* Mees, 1960
37 400018 *Kathetostoma canaster* Gomon & Last, 1987
37 400003 *Kathetostoma laeve* (Bloch & Schneider, 1801)
37 400004 *Kathetostoma nigrofasciatum* Waite & McCulloch, 1915
37 400005 *Pleuroscopus pseudodorsalis* Barnard, 1927
37 400007 *Uranoscopus bicinctus* Temminck & Schlegel, 1843
37 400023 *Uranoscopus* cf *japonicus* Houttuyn, 1782
37 400008 *Uranoscopus cognatus* Cantor, 1850
37 400024 *Uranoscopus kaianus* Günther, 1880
37 400011 *Uranoscopus oligolepis* Bleeker, 1878
37 400009 *Uranoscopus* sp. 1 [in Sainsbury *et al.*, 1985]
37 400016 *Uranoscopus* sp. 2 [in Sainsbury *et al.*, 1985]
37 400015 *Uranoscopus* sp. 3 [in Sainsbury *et al.*, 1985]
37 400025 *Uranoscopus terraereginae* Ogilby, 1910

37 401000 — **FAMILY CHAMPSODONTIDAE** —
37 401006 *Champsodon atridorsalis* Ochiai & Nakamura, 1964
37 401005 *Champsodon guentheri* Regan, 1908
37 401002 *Champsodon longipinnis* Matsubara, Ochiai, Amaoka & Nakamura, 1964
37 401007 *Champsodon machaeratus* Nemeth, 1994
37 401001 *Champsodon nudivittis* (Ogilby, 1895)
37 401008 *Champsodon pantolepis* Nemeth, 1994
37 401009 *Champsodon sagittus* Nemeth, 1994
37 401010 *Champsodon snyderi* Franz, 1910
37 401011 *Champsodon vorax* Günther, 1867

37 402000 — **FAMILY CHIASMODONTIDAE** —
37 402001 *Chiasmodon niger* Johnson, 1864
37 402003 *Dysalotus alcocki* MacGilchrist, 1905
37 402002 *Dysalotus oligoscolus* Johnson & Cohen, 1974
37 402004 *Kali macrura* (Parr, 1933)
37 402005 *Kali normani* (Parr, 1931)
37 402006 *Pseudoscopelus altipinnis* Parr, 1933
37 402007 *Pseudoscopelus stellatus* Beebe, 1932

37 403000 — **FAMILY BOVICHTHYIDAE** —
37 403001 *Bovichtus angustifrons* (Regan, 1913)
37 403004 *Pseudaphritis* sp. [Last]
37 403003 *Pseudaphritis urvilli* (Valenciennes, 1831)

37 404000 — **FAMILY NOTOTHENIIDAE** —

— Imported Species —
37 404792 *Dissostichus eleginoides* Smitt, 1898
37 404790 *Pleuragramma antarcticum* Boulenger, 1902
37 404791 *Trematomus eulepidotus* Regan, 1914

37 407000 — **FAMILY CHANNICHTHYIDAE** —

— Imported Species —
37 407790 *Chaenodraco wilsoni* Regan, 1914
37 407791 *Champsocephalus gunnari* Lönnberg, 1905

37 408000 — **FAMILY BLENNIIDAE** —
37 408008 *Aspidontus taeniatus* Quoy & Gaimard, 1834
37 408009 *Atrosalarias fuscus* (Rüppell, 1835)
37 408042 *Bleniella chrysospilos* (Bleeker, 1857)
37 408048 *Bleniella paula* (Bryan & Herre, 1903)
37 408049 *Bleniella periophthalmus* (Valenciennes, 1836)
37 408088 *Blenniella bilitonensis* (Bleeker, 1858)
37 408010 *Cirripectes alboapicalis* (Ogilby, 1899)
37 408011 *Cirripectes castaneus* (Valenciennes, 1836)
37 408012 *Cirripectes chelomatus* Williams & Maugé, 1983
37 408013 *Cirripectes filamentosus* (Alleyne & Macleay, 1877)

37 408014 *Cirripectes hutchinsi* Williams, 1988
37 408015 *Cirripectes polyzonus* (Bleeker, 1868)
37 408016 *Cirripectes quagga* (Fowler & Ball, 1924)
37 408017 *Cirripectes stigmaticus* Strasburg & Schultz, 1953
37 408018 *Crossosalarias macrospilus* Smith-Vaniz & Springer, 1971
37 408019 *Ecsenius aequalis* Springer, 1988
37 408020 *Ecsenius alleni* Springer, 1988
37 408021 *Ecsenius australianus* Springer, 1988
37 408022 *Ecsenius bicolor* (Day, 1888)
37 408023 *Ecsenius fourmanoiri* Springer, 1972
37 408024 *Ecsenius frontalis* (Ehrenberg, 1836)
37 408025 *Ecsenius lineatus* Klausewitz, 1962
37 408026 *Ecsenius lividanalis* Chapman & Schultz, 1952
37 408027 *Ecsenius mandibularis* McCulloch, 1923
37 408028 *Ecsenius midas* Starck, 1969
37 408029 *Ecsenius oculatus* Springer, 1988
37 408030 *Ecsenius schroederi* McKinney & Springer, 1976
37 408031 *Ecsenius stictus* Springer, 1988
37 408032 *Ecsenius tigris* Springer, 1988
37 408089 *Ecsenius trilineatus* Springer, 1972
37 408033 *Ecsenius yaeyamaensis* (Aoyagi, 1954)
37 408086 *Enchelyurus ater* (Günther, 1877)
37 408034 *Enchelyurus flavipes* Peters, 1869
37 408035 *Enchelyurus kraussi* (Klunzinger, 1871)
37 408036 *Entomacrodus decussatus* (Bleeker, 1858)
37 408037 *Entomacrodus striatus* (Quoy & Gaimard, 1836)
37 408038 *Entomacrodus thalassinus* (Jordan & Seale, 1906)
37 408039 *Exallias brevis* (Kner, 1868)
37 408040 *Glyptoparus delicatulus* Smith, 1959
37 408041 *Hirculops cornifer* (Rüppell, 1830)
37 408007 *Istiblennius dussumieri* (Valenciennes, 1836)
37 408043 *Istiblennius edentulus* (Schneider & Forster, 1801)
37 408045 *Istiblennius lineatus* (Valenciennes, 1836)
37 408046 *Istiblennius meleagris* (Valenciennes, 1836)
37 408050 *Laiphognathus multimaculatus* Smith, 1955
37 408051 *Meiacanthus atrodorsalis* (Günther, 1877)
37 408052 *Meiacanthus ditrema* Smith-Vaniz, 1976
37 408005 *Meiacanthus grammistes* (Valenciennes, 1836)
37 408053 *Meiacanthus lineatus* (De Vis, 1884)
37 408054 *Meiacanthus luteus* Smith-Vaniz, 1987
37 408055 *Meiacanthus naevius* Smith-Vaniz, 1987
37 408056 *Mimoblennius atrocinctus* (Regan, 1909)
37 408057 *Nannosalarias nativitatus* (Regan, 1909)
37 408058 *Omobranchus anolius* (Valenciennes, 1836)
37 408059 *Omobranchus elongatus* (Peters, 1855)
37 408060 *Omobranchus ferox* (Herre, 1927)
37 408061 *Omobranchus germaini* (Sauvage, 1883)
37 408062 *Omobranchus lineolatus* (Kner, 1868)
37 408063 *Omobranchus punctatus* (Valenciennes, 1836)
37 408092 *Omobranchus robertsi* Springer, 1981
37 408064 *Omobranchus rotundiceps* (Macleay, 1881)
37 408065 *Omobranchus verticalis* Springer & Gomon, 1975
37 408066 *Omox biporos* Springer, 1972
37 408067 *Parablennius intermedius* (Ogilby, 1915)
37 408090 *Parablennius laticlavius* (Griffin, 1926)
37 408068 *Parablennius postoculomaculatus* Bath & Hutchins, 1986
37 408002 *Parablennius tasmanianus* (Richardson, 1849)
37 408069 *Parenchelyurus hepburni* (Snyder, 1908)
37 408070 *Parenchelyurus hyena* (Whitley, 1953)
37 408071 *Petroscirtes breviceps* (Valenciennes, 1836)
37 408072 *Petroscirtes fallax* Smith-Vaniz, 1976
37 408073 *Petroscirtes lupus* (De Vis, 1885)
37 408074 *Petroscirtes mitratus* Rüppell, 1830
37 408003 *Petroscirtes variabilis* Cantor, 1850
37 408091 *Petroscirtes xestus* Jordan & Seale, 1906
37 408075 *Plagiotremus laudandus* (Whitley, 1961)
37 408004 *Plagiotremus rhinorhynchos* (Bleeker, 1852)
37 408076 *Plagiotremus tapeinosoma* (Bleeker, 1857)
37 408077 *Rhabdoblennius ellipes* (Jordan & Starks, 1906)
37 408078 *Salarias calvus* De Vis, 1884
37 408079 *Salarias fasciatus* (Bloch, 1786)
37 408080 *Salarias irroratus* Alleyne & Macleay, 1877
37 408081 *Salarias pallidus* Whitley, 1926
37 408082 *Salarias sinuosus* Snyder, 1908
37 408083 *Salarias spaldingi* Macleay, 1878
37 408084 *Stanulus seychellensis* Smith, 1959

37 408085 *Stanulus talboti* Springer, 1968
37 408087 *Xiphasia matsubarai* Okada & Suzuki, 1952
37 408001 *Xiphasia setifer* Swainson, 1839

37 411000 — **FAMILY CONGROGADIDAE** —
37 411003 *Blennodesmus scapularis* Günther, 1872
37 411002 *Congrogadus amplimaculatus* (Winterbottom, 1980)
37 411005 *Congrogadus malayanus* (Weber, 1909)
37 411001 *Congrogadus spinifer* (Borodin, 1933)
37 411004 *Congrogadus subducens* (Richardson, 1843)

37 412000 — **FAMILY NOTOGRAPTIDAE** —
37 412002 *Notograptus gregoryi* Whitley, 1941
37 412001 *Notograptus guttatus* Günther, 1867

37 414000 — **FAMILY OPHICLINIDAE** —
37 414007 *Ophiclinops hutchinsi* George & Springer, 1980
37 414001 *Ophiclinops pardalis* (McCulloch & Waite, 1918)
37 414004 *Ophiclinops varius* (McCulloch & Waite, 1918)
37 414008 *Ophiclinus antarcticus* Castelnau, 1872
37 414009 *Ophiclinus brevipinnis* George & Springer, 1980
37 414006 *Ophiclinus gabrieli* Waite, 1906
37 414002 *Ophiclinus gracilis* Waite, 1906
37 414003 *Ophiclinus ningulus* George & Springer, 1980
37 414010 *Ophiclinus pectoralis* George & Springer, 1980
37 414012 *Peronedys anguillaris* Steindachner, 1884
37 414011 *Stichariurn clarkae* George & Springer, 1980
37 414005 *Stichariurn dorsale* Günther, 1867

37 415000 — **FAMILY TRIPTERYGIIDAE** —
37 415007 *Apopterygion alta* Kuiter, 1986
37 415001 *Brachynectes fasciatus* Scott, 1957
37 415008 *Ceratobregma acanthops* (Whitley, 1964)
37 415009 *Ceratobregma helenae* Holleman, 1987
37 415010 *Ceratobregma striata* Fricke, 1991
37 415012 *Enneapterygius atrogulare* (Günther, 1873)
37 415030 *Enneapterygius hemimelas* (Kner & Steindachner, 1867)
37 415031 *Enneapterygius minutus* (Günther, 1877)
37 415032 *Enneapterygius rufopileus* (Waite, 1904)
37 415011 *Enneapterygius tutuilae* Jordan & Seale, 1906
37 415003 *Forsterygion varium* (Schneider, 1801)
37 415002 *Grahamina gymnota* (Scott, 1977)
37 415014 *Helcogramma capidata* Rosenblatt, 1960
37 415015 *Helcogramma decurrens* McCulloch & Waite, 1918
37 415016 *Helcogramma ellioti* (Herre, 1944)
37 415033 *Helcogramma gymnauchen* (Weber, 1909)
37 415017 *Helcogramma hudsoni* (Jordan & Seale, 1906)
37 415018 *Helcogramma springeri* Hansen, 1986
37 415019 *Helcogramma striata* Hansen, 1986
37 415020 *Lepidoblennius haplodactylus* Steindachner, 1867
37 415021 *Lepidoblennius marmoratus* (Macleay, 1878)
37 415025 *Norfolkia squamiceps* (McCulloch & Waite, 1916)
37 415026 *Norfolkia thomasi* Whitley, 1964
37 415027 *Trianectes bucephalus* McCulloch & Waite, 1918
37 415022 *Trinorfolkia brachylepis* (Schultz, 1960)
37 415005 *Trinorfolkia clarkei* (Morton, 1888)
37 415023 *Trinorfolkia cristata* (Kuiter, 1986)
37 415024 *Trinorfolkia incisa* (Kuiter, 1986)
37 415034 *Ucla xenogrammus* Holleman, 1993

37 416000 — **FAMILY CLINIDAE** —
37 416006 *Cristiceps argyropleura* Kner, 1865
37 416017 *Cristiceps aurantiacus* Castelnau, 1879
37 416007 *Cristiceps australis* Valenciennes, 1836
37 416008 *Heteroclinus adelaidae* Castelnau, 1873
37 416018 *Heteroclinus antinectes* (Günther, 1861)
37 416019 *Heteroclinus eckloniae* (McKay, 1970)
37 416020 *Heteroclinus equiradiatus* Milward, 1960
37 416010 *Heteroclinus heptaeolus* (Ogilby, 1885)
37 416011 *Heteroclinus johnstoni* (Saville-Kent, 1886)
37 416012 *Heteroclinus macropthalmus* Hoese, 1976
37 416021 *Heteroclinus marmoratus* (Klunzinger, 1872)
37 416022 *Heteroclinus nasutus* (Günther, 1861)
37 416013 *Heteroclinus perspicillatus* (Valenciennes, 1836)

37 416014 *Heteroclinus puellarum* Scott, 1955
37 416023 *Heteroclinus roseus* (Günther, 1861)
37 416015 *Heteroclinus* sp. [Last]
37 416025 *Heteroclinus* sp. 1 [in Gomon *et al.*, 1994]
37 416026 *Heteroclinus* sp. 2 [in Gomon *et al.*, 1994]
37 416027 *Heteroclinus* sp. 3 [in Gomon *et al.*, 1994]
37 416028 *Heteroclinus* sp. 4 [in Gomon *et al.*, 1994]
37 416029 *Heteroclinus* sp. 5 [in Gomon *et al.*, 1994]
37 416030 *Heteroclinus* sp. 6 [in Gomon *et al.*, 1994]
37 416031 *Heteroclinus* sp. 8 [in Gomon *et al.*, 1994]
37 416032 *Heteroclinus* sp. 9 [in Gomon *et al.*, 1994]
37 416009 *Heteroclinus tristis* (Klunzinger, 1872)
37 416024 *Heteroclinus whiteleggii* (Ogilby, 1894)
37 416016 *Heteroclinus wilsoni* (Lucas, 1891)

37 424000 **— FAMILY SCHINDLERIIDAE —**
37 424001 *Schindleria pietschmanni* (Schindler, 1930)
37 424002 *Schindleria praematura* (Schindler, 1930)

37 425000 **— FAMILY AMMODYTIDAE —**
37 425003 *Ammodytoides vagus* (McCulloch & Waite, 1916)
37 425001 *Bleekeria mitsukurii* Jordan & Evermann, 1903
37 425002 *Bleekeria viridianguilla* (Fowler, 1931)

37 427000 **— FAMILY CALLIONYMIDAE —**
37 427016 *Callionymus annulatus* Weber, 1913
37 427013 *Callionymus australis* Fricke, 1983
37 427011 *Callionymus belcheri* Richardson, 1844
37 427037 *Callionymus delicatulus* Smith, 1963
37 427017 *Callionymus draconis* Nakabo, 1977
37 427018 *Callionymus enneactis* Bleeker, 1879
37 427006 *Callionymus goodladi* (Whitley, 1944)
37 427007 *Callionymus grossi* Ogilby, 1910
37 427008 *Callionymus japonicus* Houttuyn, 1782
37 427012 *Callionymus limiceps* Ogilby, 1908
37 427023 *Callionymus macdonaldi* Ogilby, 1911
37 427019 *Callionymus meridionalis* Suwardji, 1965
37 427003 *Callionymus moretonensis* Johnson, 1971
37 427020 *Callionymus parvus* (Nakabo, 1984)
37 427021 *Callionymus pleurostictus* Fricke, 1982
37 427022 *Callionymus russelli* Johnson, 1976
37 427036 *Callionymus scaber* McCulloch, 1926
37 427024 *Callionymus sphinx* Fricke & Heckele, 1983
37 427010 *Callionymus sublaevis* McCulloch, 1926
37 427025 *Centrodraco insolitus* (McKay, 1971)
37 427005 *Dactylopus dactylopus* (Valenciennes, 1837)
37 427026 *Diplogrammus goramensis* (Bleeker, 1858)
37 427027 *Diplogrammus xenicus* (Jordan & Thompson, 1914)
37 427015 *Repomucenus calcaratus* (Macleay, 1881)
37 427030 *Synchiropus altivelis* (Temminck & Schlegel, 1850)
37 427028 *Synchiropus apricus* (McCulloch, 1926)
37 427029 *Synchiropus australis* (Nakabo & McKay, 1989)
37 427001 *Synchiropus calauropomus* (Richardson, 1844)
37 427031 *Synchiropus morrisoni* Schultz, 1960
37 427033 *Synchiropus occidentalis* Fricke, 1983
37 427032 *Synchiropus ocellatus* (Pallas, 1770)
37 427014 *Synchiropus papilio* (Günther, 1864)
37 427002 *Synchiropus phasis* (Günther, 1880)
37 427009 *Synchiropus rameus* (McCulloch, 1926)
37 427034 *Synchiropus splendidus* (Herre, 1927)
37 427035 *Synchiropus stellatus* Smith, 1963

37 428000 **— FAMILY GOBIIDAE —**
37 428030 *Acanthogobius flavimanus* (Temminck & Schlegel, 1845)
37 428019 *Acentrogobius caninus* (Valenciennes, 1837)
37 428020 *Acentrogobius gracilis* (Bleeker, 1875)
37 428031 *Acentrogobius janthinopterus* (Bleeker, 1852)
37 428021 *Acentrogobius viridipunctatus* (Valenciennes, 1837)
37 428032 *Amblyeleotris callopareia* Polunin & Lubbock, 1979
37 428033 *Amblyeleotris diagonalis* Polunin & Lubbock, 1977
37 428034 *Amblyeleotris fasciata* (Herre, 1953)
37 428035 *Amblyeleotris fontanesii* (Bleeker, 1852)

37 428036 *Amblyeleotris guttata* (Fowler, 1938)
37 428037 *Amblyeleotris gymnocephala* (Bleeker, 1853)
37 428038 *Amblyeleotris macronema* Polunin & Lubbock, 1979
37 428039 *Amblyeleotris ogasawarensis* Yanagisawa, 1978
37 428040 *Amblyeleotris periophthalma* (Bleeker, 1853)
37 428041 *Amblyeleotris randalli* Hoese & Steene, 1978
37 428042 *Amblyeleotris rhyax* Polunin & Lubbock, 1979
37 428043 *Amblyeleotris steinitzi* (Klausewitz, 1974)
37 428044 *Amblyeleotris wheeleri* (Polunin & Lubbock, 1977)
37 428045 *Amblygobius bynoensis* (Richardson, 1844)
37 428046 *Amblygobius decussatus* (Bleeker, 1855)
37 428047 *Amblygobius nocturnus* (Herre, 1945)
37 428048 *Amblygobius phalaena* (Valenciennes, 1837)
37 428049 *Amblygobius rainfordi* (Whitley, 1940)
37 428050 *Amblygobius sphynx* (Valenciennes, 1837)
37 428051 *Amblyotrypauchen fraseri* Hora, 1924
37 428052 *Amoya madraspatensis* (Day, 1868)
37 428053 *Amoya moloanus* (Herre, 1927)
37 428054 *Amoya suluensis* (Herre, 1927)
37 428055 *Apocryptodon madurensis* Bleeker, 1849
37 428008 *Arenigobius bifrenatus* (Kner, 1865)
37 428002 *Arenigobius frenatus* (Günther, 1861)
37 428056 *Arenigobius leftwichi* (Ogilby, 1910)
37 428057 *Asterropteryx ensiferus* (Bleeker, 1874)
37 428058 *Asterropteryx semipunctatus* Rüppell, 1830
37 428059 *Asterropteryx spinosus* (Goren, 1981)
37 428060 *Austrolethops wardi* Whitley, 1935
37 428061 *Awaous* sp. 1 [in Allen, 1991]
37 428062 *Barbuligobius boehlkei* Lachner & McKinney, 1974
37 428063 *Bathygobius albopunctatus* (Valenciennes, 1837)
37 428064 *Bathygobius coalitus* (Bennett, 1832)
37 428065 *Bathygobius cocosensis* (Bleeker, 1854)
37 428066 *Bathygobius cotticeps* (Steindachner, 1866)
37 428067 *Bathygobius cyclopterus* (Valenciennes, 1837)
37 428068 *Bathygobius fuscus* (Rüppell, 1830)
37 428069 *Bathygobius krefftii* (Steindachner, 1866)
37 428070 *Bathygobius laddi* (Fowler, 1931)
37 428071 *Bathygobius meggetti* (Hora & Mukerji, 1936)
37 428298 *Bathygobius padangensis* (Bleeker, 1851)
37 428299 *Bathygobius* sp. [Hoese or Larson]
37 428072 *Boleophthalmus birdsongi* Murdy, 1989
37 428073 *Boleophthalmus caeruleomaculatus* McCulloch & Waite, 1918
37 428074 *Brachyamblyopus rubrilineatus* (Saville-Kent, 1889)
37 428075 *Bryaninops amplus* Larson, 1985
37 428076 *Bryaninops erythrops* (Jordan & Seale, 1906)
37 428077 *Bryaninops isis* Larson, 1985
37 428078 *Bryaninops loki* Larson, 1985
37 428079 *Bryaninops natans* Larson, 1985
37 428080 *Bryaninops nexus* Larson, 1987
37 428081 *Bryaninops ridens* Smith, 1959
37 428082 *Bryaninops tigris* Larson, 1985
37 428083 *Bryaninops yongei* (Davis & Cohen, 1969)
37 428084 *Cabillus lacertops* Smith, 1959
37 428085 *Cabillus tongarevae* (Fowler, 1927)
37 428300 *Callogobius centrolepis* Weber, 1909
37 428086 *Callogobius clitellus* McKinney & Lachner, 1978
37 428087 *Callogobius depressus* (Ramsay & Ogilby, 1886)
37 428088 *Callogobius hasseltii* (Bleeker, 1851)
37 428089 *Callogobius maculipinnis* (Fowler, 1918)
37 428003 *Callogobius mucosus* (Günther, 1872)
37 428090 *Callogobius okinawae* (Snyder, 1908)
37 428301 *Callogobius plumatus* (Smith, 1959)
37 428091 *Callogobius sclateri* (Steindachner, 1879)
37 428092 *Chlamydogobius eremius* (Zietz, 1896)
37 428302 *Chlamydogobius gloveri* Larson, 1995
37 428303 *Chlamydogobius japalpa* Larson, 1995
37 428304 *Chlamydogobius micropterus* Larson, 1995
37 428305 *Chlamydogobius ranunculus* Larson, 1995
37 428306 *Chlamydogobius squamigenus* Larson, 1995
37 428145 *Coryphopterus duospilus* (Hoese & Reader, 1985)
37 428146 *Coryphopterus neophytus* (Günther, 1877)
37 428147 *Coryphopterus signipinnis* (Hoese & Obika, 1988)
37 428093 *Cryptocentroides cristatus* (Macleay, 1881)
37 428094 *Cryptocentroides insignis* (Seale, 1910)
37 428095 *Cryptocentrus bulbiceps* (Whitley, 1953)
37 428096 *Cryptocentrus caeruleomaculatus* (Herre, 1933)
37 428097 *Cryptocentrus cebuanus* Herre, 1927
37 428098 *Cryptocentrus cinctus* (Herre, 1936)
37 428099 *Cryptocentrus fasciatus* (Playfair & Günther, 1867)

37 428100 *Cryptocentrus inexplicatus* (Herre, 1934)
37 428101 *Cryptocentrus insignitus* (Whitley, 1956)
37 428102 *Cryptocentrus leptocephalus* (Bleeker, 1876)
37 428103 *Cryptocentrus leucostictus* (Günther, 1871)
37 428104 *Cryptocentrus maudae* Fowler, 1937
37 428307 *Cryptocentrus obliquus* (Herre, 1934)
37 428105 *Cryptocentrus strigilliceps* (Jordan & Seale, 1906)
37 428106 *Ctenogobiops aurocingulus* (Herre, 1935)
37 428107 *Ctenogobiops crocineus* Smith, 1959
37 428108 *Ctenogobiops feroculus* Lubbock & Polunin, 1977
37 428109 *Ctenogobiops pomastictus* Lubbock & Polunin, 1977
37 428110 *Ctenogobiops tangaroae* Lubbock & Polunin, 1977
37 428278 *Ctenotrypauchen microcephalus* (Bleeker, 1860)
37 428111 *Discordipinna griessingeri* Hoese & Fourmanoir, 1978
37 428022 *Drombus globiceps* (Hora, 1923)
37 428112 *Drombus halei* Whitley, 1935
37 428113 *Drombus lepidothorax* Whitley, 1945
37 428023 *Drombus ocyurus* (Jordan & Seale, 1906)
37 428294 *Drombus* sp. 8 [of Rennis, Larson, pers comm]
37 428024 *Drombus triangularis* (Weber, 1911)
37 428114 *Eviota afelei* Jordan & Seale, 1906
37 428115 *Eviota albolineata* Jewett & Lachner, 1983
37 428116 *Eviota bifasciata* Lachner & Karnella, 1980
37 428117 *Eviota bimaculata* Lachner & Karnella, 1980
37 428118 *Eviota cometa* Jewett & Lachner, 1983
37 428119 *Eviota distigma* Jordan & Seale, 1906
37 428120 *Eviota fasciola* Karnella & Lachner, 1981
37 428121 *Eviota herrei* Jordan & Seale, 1906
37 428122 *Eviota infulata* (Smith, 1957)
37 428123 *Eviota inutilis* Whitley, 1943
37 428308 *Eviota lachdeberei* Giltay, 1933
37 428309 *Eviota latifasciata* Jewett & Lachner, 1983
37 428124 *Eviota melasma* Lachner & Karnella, 1980
37 428125 *Eviota monostigma* Fourmanoir, 1971
37 428126 *Eviota nebulosa* Smith, 1958
37 428127 *Eviota nigriventris* Giltay, 1933
37 428128 *Eviota pellucida* Larson, 1976
37 428129 *Eviota prasina* (Klunzinger, 1871)
37 428130 *Eviota prasites* Jordan & Seale, 1906
37 428310 *Eviota punctulata* Jewett & Lachner, 1983
37 428131 *Eviota queenslandica* Whitley, 1932
37 428132 *Eviota sebreei* Jordan & Seale, 1906
37 428133 *Eviota sigillata* Jewett & Lachner, 1983
37 428311 *Eviota smaragdus* Jordan & Seale, 1906
37 428134 *Eviota sparsa* Jewett & Lachner, 1983
37 428135 *Eviota spilota* Lachner & Karnella, 1980
37 428312 *Eviota storthynx* (Rofen, 1959)
37 428136 *Eviota variola* Lachner & Karnella, 1980
37 428137 *Eviota zebrina* Lachner & Karnella, 1978
37 428138 *Eviota zonura* Jordan & Seale, 1906
37 428139 *Exyrias bellissimus* (Smith, 1959)
37 428140 *Exyrias puntang* (Bleeker, 1851)
37 428141 *Favonigobius exquisitus* Whitley, 1950
37 428005 *Favonigobius lateralis* (Macleay, 1881)
37 428329 *Favonigobius lentiginosus* (Richardson, 1844)
37 428026 *Favonigobius melanobranchus* (Fowler, 1934)
37 428142 *Favonigobius punctatus* (Gill & Miller, 1990)
37 428143 *Favonigobius suppositus* (Sauvage, 1880)
37 428004 *Favonigobius tamarensis* (Johnston, 1883)
37 428144 *Feia nympha* Smith, 1959
37 428148 *Glossogobius aureus* Akihito & Meguro, 1975
37 428149 *Glossogobius bicirrhosus* (Weber, 1894)
37 428025 *Glossogobius biocellatus* (Valenciennes, 1837)
37 428029 *Glossogobius celebius* (Valenciennes, 1837)
37 428027 *Glossogobius circumspectus* (Macleay, 1883)
37 428150 *Glossogobius concavifrons* (Ramsay & Ogilby, 1886)
37 428151 *Glossogobius giuris* (Hamilton-Buchanan, 1822)
37 428313 *Glossogobius* sp. 1 [in Allen, 1991]
37 428314 *Glossogobius* sp. A [in Allen, 1988]
37 428315 *Glossogobius* sp. B [in Allen, 1988]
37 428316 *Glossogobius* sp. C [in Allen, 1988]
37 428152 *Gnatholepis cauerensis* (Bleeker, 1853)
37 428153 *Gnatholepis inconsequens* Whitley, 1958
37 428154 *Gnatholepis scapulostigma* Herre, 1953
37 428155 *Gobiodon albofasciatus* Sawada & Arai, 1972
37 428156 *Gobiodon axillaris* De Vis, 1884

37 428158 *Gobiodon citrinus* (Rüppell, 1838)
37 428159 *Gobiodon heterospilos* (Bleeker, 1856)
37 428160 *Gobiodon histrio* (Valenciennes, 1837)
37 428161 *Gobiodon micropus* Günther, 1861
37 428162 *Gobiodon okinawae* Sawada, Arai & Abe, 1972
37 428164 *Gobiodon rivulatus* (Rüppell, 1830)
37 428165 *Gobiopsis angustifrons* Lachner & McKinney, 1978
37 428166 *Gobiopsis aporia* Lachner & McKinney, 1978
37 428317 *Gobiopsis bravoi* (Herre, 1927)
37 428167 *Gobiopsis macrostoma* Steindachner, 1861
37 428168 *Gobiopterus mindanensis* (Herre, 1944)
37 428169 *Gobiopterus semivestitus* (Munro, 1949)
37 428170 *Hazeus elati* (Goren, 1984)
37 428171 *Hemigobius crassa* (Herre, 1945)
37 428172 *Hetereleotris* sp. [Last]
37 428173 *Istigobius decoratus* (Herre, 1927)
37 428174 *Istigobius diadema* (Steindachner, 1877)
37 428175 *Istigobius goldmanni* (Bleeker, 1852)
37 428176 *Istigobius hoesei* Murdy & McEachran, 1982
37 428177 *Istigobius nigroocellatus* (Günther, 1873)
37 428178 *Istigobius ornatus* (Rüppell, 1830)
37 428318 *Istigobius perspicillatus* (Herre, 1945)
37 428179 *Istigobius rigilius* (Herre, 1953)
37 428180 *Istigobius spence* (Smith, 1947)
37 428181 *Lobulogobius morrigu* Larson, 1982
37 428016 *Lobulogobius omanensis* Koumans, 1944
37 428182 *Lophogobius bleekeri* Popta, 1922
37 428183 *Lotilia graciliosa* Klausewitz, 1960
37 428184 *Lubricogobius ornatus* Fourmanoir, 1966
37 428185 *Lubricogobius pumilus* Larson & Hoese, 1980
37 428186 *Luposicya lupus* Smith, 1959
37 428187 *Macrodontogobius wilburi* Herre, 1936
37 428188 *Mahidolia mystacina* (Valenciennes, 1837)
37 428189 *Mugilogobius fontinalis* (Jordan & Seale, 1906)
37 428190 *Mugilogobius paludis* (Whitley, 1930)
37 428191 *Mugilogobius platystomus* (Günther, 1872)
37 428193 *Mugilogobius zebrina* (Herre, 1950)
37 428194 *Myersina nigrivirgata* Akihito & Meguro, 1983
37 428006 *Nesogobius hinsbyi* (Johnston, 1903)
37 428007 *Nesogobius pulchellus* (Castelnau, 1872)
37 428198 *Nesogobius* sp. [Last]
37 428199 *Nesogobius* sp. [Last]
37 428195 *Nesogobius* sp. 1 [in Last *et al.*, 1983]
37 428196 *Nesogobius* sp. 2 [in Last *et al.*, 1983]
37 428197 *Nesogobius* sp. 3 [in Last *et al.*, 1983]
37 428200 *Oligolepis acutepinnis* (Valenciennes, 1837)
37 428201 *Oligolepis stomias* (Smith, 1941)
37 428203 *Oplopomus caninoides* (Bleeker, 1852)
37 428202 *Oplopomus diacanthus* Schultz, 1943
37 428204 *Oplopomus oplopomus* (Valenciennes, 1837)
37 428205 *Oxuderces wirzi* (Koumans, 1938)
37 428206 *Oxyurichthys cornutus* (McCulloch & Waite, 1918)
37 428207 *Oxyurichthys microlepis* (Bleeker, 1849)
37 428208 *Oxyurichthys papuanus* (Valenciennes, 1837)
37 428209 *Palutrus pruniosus* (Jordan & Seale, 1906)
37 428210 *Pandaka lidwilli* (McCulloch, 1917)
37 428028 *Pandaka rouxi* (Weber, 1911)
37 428211 *Parachaeturichthys polynema* (Bleeker, 1853)
37 428212 *Paragobiodon echinocephalus* (Rüppell, 1830)
37 428213 *Paragobiodon lacunicolus* (Kendall & Goldsborough, 1911)
37 428215 *Paragobiodon modestus* (Regan, 1908)
37 428216 *Paragobiodon xanthosomus* (Bleeker, 1852)
37 428217 *Parkraemeria ornata* Whitley, 1951
37 428218 *Periophthalmodon freycineti* (Valenciennes, 1837)
37 428219 *Periophthalmus argentilineatus* Valenciennes, 1837
37 428220 *Periophthalmus gracilis* Eggert, 1935
37 428221 *Periophthalmus minutus* Eggert, 1935
37 428222 *Periophthalmus novaeguineaensis* Eggert, 1935
37 428224 *Phyllogobius platycephalops* (Smith, 1964)
37 428319 *Pipidonia bravoi* (Herre, 1927)
37 428225 *Pleurosicya annandalei* Hornell & Fowler, 1922
37 428226 *Pleurosicya bilobata* (Koumans, 1941)
37 428015 *Pleurosicya boldinghi* Weber, 1913
37 428227 *Pleurosicya coerulea* Larson, 1990
37 428228 *Pleurosicya elongata* Larson, 1990
37 428229 *Pleurosicya fringilla* Larson, 1990
37 428230 *Pleurosicya labiata* (Weber, 1913)
37 428231 *Pleurosicya mossambica* Smith, 1959
37 428232 *Pleurosicya muscarum* (Jordan & Seale, 1906)

37 428233 *Pleurosicya plicata* Larson, 1990
37 428234 *Pleurosicya prognatha* Goren, 1984
37 428235 *Pleurosicya* sp. [see Randall *et al.*, 1990]
37 428297 *Priolepis* RW sp. 8 [in Winterbottom & Burridge, 1992]
37 428236 *Priolepis cinctus* (Regan, 1908)
37 428237 *Priolepis compita* Winterbottom, 1985
37 428296 *Priolepis fallacincta* Winterbottom & Birridge, 1992
37 428238 *Priolepis inhaca* (Smith, 1949)
37 428018 *Priolepis nuchifasciata* (Günther, 1873)
37 428239 *Priolepis profunda* (Weber, 1909)
37 428011 *Priolepis semidoliatus* (Valenciennes, 1837)
37 428240 *Pseudogobius gastrospilos* (Bleeker, 1853)
37 428241 *Pseudogobius javanicus* (Bleeker, 1856)
37 428009 *Pseudogobius olorum* (Sauvage, 1880)
37 428295 *Pseudogobius* sp. 5 [Larson, pers comm]
37 428242 *Psilogobius prolatus* Watson & Lachner, 1985
37 428243 *Redigobius balteatus* (Herre, 1935)
37 428244 *Redigobius bikolanus* (Herre, 1927)
37 428245 *Redigobius chrysosoma* (Bleeker, 1875)
37 428246 *Redigobius macrostoma* (Günther, 1861)
37 428247 *Scartelaos histiophorus* (Valenciennes, 1837)
37 428248 *Schismatogobius insignum* (Herre, 1927)
37 428249 *Signigobius biocellatus* Hoese & Allen, 1977
37 428250 *Silhouettea evanida* Larson & Miller, 1986
37 428251 *Silhouettea hoesei* Larson & Miller, 1986
37 428252 *Silhouettea insinuans* Smith, 1959
37 428253 *Stonogobiops xanthorhinica* Hoese & Randall, 1982
37 428254 *Sueviota atrinasa* Winterbottom & Hoese, 1988
37 428255 *Sueviota lachneri* Winterbottom & Hoese, 1988
37 428256 *Sueviota larsonae* Winterbottom & Hoese, 1988
37 428257 *Taenioides cirratus* (Blyth, 1860)
37 428258 *Taenioides limicola* Smith, 1964
37 428259 *Taenioides mordax* (De Vis, 1883)
37 428260 *Taenioides purpurascens* (De Vis, 1884)
37 428261 *Tasmanogobius gloveri* Hoese, 1991
37 428262 *Tasmanogobius lasti* Hoese, 1991
37 428010 *Tasmanogobius lordi* Scott, 1935
37 428263 *Tomiyamichthys latruncularia* (Klausewitz, 1974)
37 428264 *Tridentiger trigonocephalus* (Gill, 1859)
37 428265 *Trimma emeryi* Winterbottom, 1985
37 428320 *Trimma fraena* Winterbottom, 1983
37 428266 *Trimma hoesei* Winterbottom, 1984
37 428268 *Trimma macrophthalma* (Tomiyama, 1936)
37 428321 *Trimma naudei* Smith, 1956
37 428269 *Trimma necopinus* (Whitley, 1959)
37 428270 *Trimma okinawae* (Aoyagi, 1949)
37 428322 *Trimma sheppardi* Winterbottom, 1983
37 428271 *Trimma striata* (Herre, 1945)
37 428272 *Trimma taylori* Lobel, 1979
37 428273 *Trimma tevegae* Cohen & Davis, 1969
37 428267 *Trimma unisquamis* (Gosline, 1959)
37 428323 *Trimma winchi* Winterbottom, 1983
37 428274 *Trimmatom eviotops* Schultz, 1943
37 428275 *Trimmatom macropodus* Winterbottom, 1989
37 428276 *Trimmatom nanus* Winterbottom & Emery, 1981
37 428277 *Trimmatom zapotes* Winterbottom, 1989
37 428279 *Trypauchenichthys typus* Bleeker, 1860
37 428325 *Valenciennea alleni* Hoese & Larson, 1994
37 428326 *Valenciennea decora* Hoese & Larson, 1994
37 428280 *Valenciennea helsdingenii* (Bleeker, 1858)
37 428282 *Valenciennea longipinnis* (Lay & Bennett, 1839)
37 428283 *Valenciennea muralis* (Valenciennes, 1837)
37 428327 *Valenciennea parra* Hoese & Larson, 1994
37 428284 *Valenciennea puellaris* (Tomiyama, 1956)
37 428328 *Valenciennea randalli* Hoese & Larson, 1994
37 428285 *Valenciennea sexguttata* (Valenciennes, 1837)
37 428281 *Valenciennea* sp. [Kuiter, 1993]
37 428324 *Valenciennea* sp. [see Kuiter, 1993]
37 428286 *Valenciennea strigata* (Broussonet, 1782)
37 428287 *Valenciennea wardii* (Playfair, 1867)
37 428288 *Vanderhorstia ambanoro* (Fourmanoir, 1957)
37 428289 *Vanderhorstia elongata* Yanagasawa, 1978
37 428290 *Vanderhorstia mertensi* (Klausewitz, 1974)
37 428291 *Vanderhorstia ornatissima* Smith, 1959
37 428292 *Yoga pyrops* (Whitley, 1954)
37 428001 *Yongeichthys criniger* (Valenciennes, 1837)
37 428293 *Yongeichthys nebulosus* (Forsskål, 1775)

37 429000 — **FAMILY ELEOTRIDIDAE** —
37 429011 *Bostrychus sinensis* Lacépède, 1801
37 429012 *Bostrychus zonatus* Weber, 1907
37 429013 *Bunaka gyrinoides* (Bleeker, 1853)
37 429009 *Butis butis* (Hamilton-Buchanan, 1822)
37 429014 *Butis wardi* Whitley, 1939
37 429015 *Calumia godeffroyi* (Günther, 1877)
37 429048 *Calumia profunda* Larson & Hoese, 1980
37 429016 *Eleotris acanthopoma* Bleeker, 1853
37 429017 *Eleotris fusca* (Bloch & Schneider, 1801)
37 429018 *Eleotris melanosoma* Bleeker, 1852
37 429019 *Giuris margaritacea* (Valenciennes, 1837)
37 429020 *Gobiomorphus australis* (Krefft, 1864)
37 429021 *Gobiomorphus coxii* (Krefft, 1864)
37 429022 *Hypseleotris aurea* (Shipway, 1950)
37 429023 *Hypseleotris compressa* Krefft, 1864
37 429024 *Hypseleotris ejuncida* Hoese & Allen, 1983
37 429025 *Hypseleotris galii* (Ogilby, 1898)
37 429026 *Hypseleotris kimberleyensis* Hoese & Allen, 1983
37 429027 *Hypseleotris klunzingeri* (Ogilby, 1898)
37 429028 *Hypseleotris regalis* Hoese & Allen, 1983
37 429049 *Hypseleotris* sp. A [in Allen, 1988]
37 429050 *Hypseleotris* sp. B [in Allen, 1988]
37 429029 *Incara multisquamatus* Rao, 1971
37 429030 *Kimberleyeleotris hutchinsi* Hoese & Allen, 1987
37 429031 *Kimberleyeleotris notata* Hoese & Allen, 1987
37 429032 *Milyeringa veritas* Whitley, 1945
37 429033 *Mogurnda adspersa* (Castelnau, 1878)
37 429034 *Mogurnda mogurnda* (Richardson, 1844)
37 429051 *Mogurnda* sp. [in Allen, 1988]
37 429052 *Mogurnda* sp. [in Allen, 1988]
37 429053 *Mogurnda* sp. [in Allen, 1988]
37 429035 *Odonteleotris macrodon* (Bleeker, 1855)
37 429010 *Ophieleotris aporos* (Bleeker, 1854)
37 429007 *Ophiocara porocephala* (Valenciennes, 1837)
37 429036 *Oxyeleotris aruensis* (Weber, 1911)
37 429037 *Oxyeleotris fimbriata* (Weber, 1908)
37 429038 *Oxyeleotris lineolata* (Steindachner, 1867)
37 429039 *Oxyeleotris nullipora* Roberts, 1978
37 429040 *Oxyeleotris selheimi* (Macleay, 1884)
37 429054 *Oxyeleotris* sp. A [in Allen, 1988]
37 429002 *Philypnodon grandiceps* (Krefft, 1864)
37 429047 *Philypnodon* sp. [in Gomon *et al.*, 1994]
37 429041 *Prionobutis microps* (Weber, 1908)
37 429042 *Thalasseleotris adela* Hoese & Larson, 1987

37 429000 — **FAMILY XENISTHMIDAE** —
37 429043 *Allomicrodesmus dorothea* Schultz, 1966
37 429044 *Tyson belos* Springer, 1983
37 429045 *Xenisthmus clara* (Jordan & Seale, 1906)
37 429046 *Xenisthmus polyzonatus* (Klunzinger, 1871)

37 432000 — **FAMILY KRAEMERIIDAE** —
37 432001 *Kraemeria merensis* Whitley, 1935
37 432002 *Kraemeria samoensis* Steindachner, 1906

37 435000 — **FAMILY MICRODESMIDAE** —
37 435002 *Aioliops tetrophthalmus* Rennis & Hoese, 1987
37 435023 *Gunnellichthys copleyi* (Smith, 1951)
37 435003 *Gunnellichthys curiosus* Dawson, 1968
37 435024 *Gunnellichthys irideus* Smith, 1958
37 435004 *Gunnellichthys monostigma* Smith, 1958
37 435005 *Gunnellichthys pleurotaenia* Bleeker, 1858
37 435006 *Gunnellichthys viridescens* Dawson, 1968
37 435007 *Nemateleotris decora* Randall & Allen, 1973
37 435008 *Nemateleotris magnifica* Fowler, 1938
37 435009 *Paragunnelichthys seychellensis* Dawson, 1967
37 435010 *Parioglossus formosus* (Smith, 1931)
37 435011 *Parioglossus marginalis* Rennis & Hoese, 1985
37 435012 *Parioglossus palustris* (Herre, 1945)
37 435013 *Parioglossus philippinus* (Herre, 1945)
37 435014 *Parioglossus rainfordi* McCulloch, 1921
37 435015 *Ptereleotris evides* (Jordan & Hubbs, 1925)
37 435016 *Ptereleotris grammica* Randall & Lubbock, 1982
37 435017 *Ptereleotris hanae* (Jordan & Snyder, 1901)
37 435018 *Ptereleotris heteroptera* (Bleeker, 1855)

37 435019 *Ptereleotris microlepis* (Bleeker, 1856)
37 435020 *Ptereleotris monoptera* Randall & Hoese, 1985
37 435021 *Ptereleotris uroditaenia* Randall & Hoese, 1985
37 435022 *Ptereleotris zebra* (Fowler, 1938)

37 436000 — **FAMILY KURTIDAE** —
37 436001 *Kurtus gulliveri* Castelnau, 1878

37 437000 — **FAMILY ACANTHURIDAE** —
37 437004 *Acanthurus albipectoralis* Allen & Ayling, 1987
37 437005 *Acanthurus auranticavus* Randall, 1956
37 437006 *Acanthurus bariene* Lesson, 1830
37 437007 *Acanthurus blochii* Valenciennes, 1835
37 437008 *Acanthurus dussumieri* Valenciennes, 1835
37 437002 *Acanthurus grammoptilus* Richardson, 1843
37 437009 *Acanthurus guttatus* Forster, 1801
37 437010 *Acanthurus lineatus* (Linnaeus, 1758)
37 437011 *Acanthurus mata* Cuvier, 1829
37 437012 *Acanthurus nigricans* (Linnaeus, 1758)
37 437013 *Acanthurus nigricaudus* Duncker & Mohr, 1929
37 437014 *Acanthurus nigrofuscus* (Forsskål, 1775)
37 437015 *Acanthurus nigroris* Valenciennes, 1835
37 437016 *Acanthurus olivaceus* Forster, 1801
37 437017 *Acanthurus pyroferus* Kittlitz, 1834
37 437018 *Acanthurus thompsoni* (Fowler, 1923)
37 437019 *Acanthurus triostegus* (Linnaeus, 1758)
37 437020 *Acanthurus xanthopterus* Valenciennes, 1835
37 437021 *Ctenochaetus binotatus* Randall, 1955
37 437022 *Ctenochaetus striatus* (Quoy & Gaimard, 1825)
37 437023 *Ctenochaetus strigosus* (Bennett, 1828)
37 437024 *Naso annulatus* (Quoy & Gaimard, 1825)
37 437025 *Naso brachycentron* (Valenciennes, 1835)
37 437026 *Naso brevirostris* (Valenciennes, 1835)
37 437027 *Naso fageni* Morrow, 1954
37 437028 *Naso hexacanthus* (Bleeker, 1855)
37 437029 *Naso lituratus* (Forster, 1801)
37 437030 *Naso lopezi* Herre, 1927
37 437038 *Naso maculatus* Randall & Struhsaker, 1981
37 437003 *Naso tuberosus* Lacépède, 1801
37 437031 *Naso unicornis* (Forsskål, 1775)
37 437032 *Naso vlamingii* (Valenciennes, 1835)
37 437033 *Paracanthurus hepatus* (Linnaeus, 1766)
37 437034 *Prionurus maculatus* Ogilby, 1887
37 437035 *Prionurus microlepidotus* Lacépède, 1804
37 437036 *Zebrasoma scopas* (Cuvier, 1829)
37 437037 *Zebrasoma veliferum* (Bloch, 1797)

37 437000 — **FAMILY ZANCLIDAE** —
37 437001 *Zanclus cornutus* (Linnaeus, 1758)

37 438000 — **FAMILY SIGANIDAE** —
37 438007 *Siganus argenteus* (Quoy & Gaimard, 1825)
37 438004 *Siganus canaliculatus* (Park, 1797)
37 438008 *Siganus corallinus* (Valenciennes, 1835)
37 438009 *Siganus doliatus* Cuvier, 1830
37 438005 *Siganus javus* (Linnaeus, 1766)
37 438010 *Siganus lineatus* (Valenciennes, 1835)
37 438001 *Siganus nebulosus* (Quoy & Gaimard, 1824)
37 438011 *Siganus puellus* (Schlegel, 1852)
37 438012 *Siganus punctatissimus* Fowler & Bean, 1929
37 438003 *Siganus punctatus* (Schneider, 1801)
37 438013 *Siganus spinus* (Linnaeus, 1758)
37 438014 *Siganus trispilos* Woodland & Allen, 1977
37 438015 *Siganus unimaculatus* (Evermann & Seale, 1907)
37 438006 *Siganus vermiculatus* (Valenciennes, 1835)
37 438016 *Siganus virgatus* (Valenciennes, 1835)
37 438017 *Siganus vulpinus* (Schlegel & Müller, 1845)

— Commercial Groupings —
37 438902 *Siganus* spp

37 439000 — **FAMILY SCOMBROLABRACIDAE** —
37 439015 *Scombrolabrax heterolepis* Roule, 1921

37 439000 — **FAMILY GEMPYLIDAE** —
37 439017 *Diplosopinus multistriatus* Maul, 1948
37 439010 *Gempylus serpens* Cuvier, 1829
37 439008 *Lepidocybium flavobrunneum* (Smith, 1849)
37 439011 *Nealotus tripes* Johnson, 1865
37 439004 *Neopinnula orientalis* (Gilchrist & von Bonde, 1924)
37 439012 *Nesiarchus nasutus* Johnson, 1862
37 439005 *Paradiplospinus gracilis* (Brauer, 1906)
37 439013 *Promethichtys prometheus* (Cuvier, 1832)
37 439009 *Rexea antefurcata* Parin, 1989
37 439007 *Rexea bengalensis* (Alcock, 1894)
37 439006 *Rexea prometheoides* (Bleeker, 1856)
37 439002 *Rexea solandri* (Cuvier, 1832)
37 439014 *Rexichthys johnpaxtoni* Parin & Astakhov, 1987
37 439003 *Ruvettus pretiosus* Cocco, 1829
37 439001 *Thyrsites atun* (Euphrasen, 1791)
37 439016 *Thyrsitoides marleyi* Fowler, 1929
37 439018 *Tongaichthys robustus* Nakamura & Fujii, 1983

37 440000 — **FAMILY TRICHIURIDAE** —
37 440012 *Aphanopus beckeri* Parin, 1995
37 440010 *Aphanopus capricornis* Parin, 1995
37 440013 *Aphanopus mikhailini* Parin, 1983
37 440007 *Assurger anzac* (Alexander, 1917)
37 440001 *Benthodesmus elongatus* (Clarke, 1879)
37 440011 *Benthodesmus tuckeri* Parin & Becker, 1970
37 440008 *Benthodesmus vityazi* Parin & Becker, 1970
37 440002 *Lepidopus caudatus* (Euphrasen, 1788)
37 440009 *Lepturacanthus savala* (Cuvier, 1829)
37 440006 *Tentoriceps cristatus* (Klunzinger, 1884)
37 440004 *Trichiurus lepturus* Linnaeus, 1758

37 441000 — **FAMILY SCOMBRIDAE** —
37 441024 *Acanthocybium solandri* (Cuvier, 1831)
37 441021 *Allothunnus fallai* Serventy, 1948
37 441027 *Auxis rochei* (Risso, 1810)
37 441009 *Auxis thazard* (Lacépède, 1800)
37 441008 *Cybiosarda elegans* (Whitley, 1935)
37 441010 *Euthynnus affinis* (Cantor, 1850)
37 441019 *Gasterochisma melampus* Richardson, 1845
37 441025 *Grammatorycnus bicarinatus* (Quoy & Gaimard, 1825)
37 441028 *Grammatorycnus bilineatus* (Rüppell, 1836)
37 441029 *Gymnosarda unicolor* (Rüppell, 1836)
37 441003 *Katsuwonus pelamis* (Linnaeus, 1758)
37 441023 *Rastrelliger faughni* Matsui, 1967
37 441012 *Rastrelliger kanagurta* (Cuvier, 1816)
37 441020 *Sarda australis* (Macleay, 1880)
37 441006 *Sarda orientalis* (Temminck & Schlegel, 1844)
37 441001 *Scomber australasicus* Cuvier, 1832
37 441007 *Scomberomorus commerson* (Lacépède, 1800)
37 441015 *Scomberomorus munroi* Collette & Russo, 1980
37 441014 *Scomberomorus queenslandicus* Munro, 1943
37 441018 *Scomberomorus semifasciatus* (Macleay, 1884)
37 441005 *Thunnus alalunga* (Bonnaterre, 1788)
37 441002 *Thunnus albacares* (Bonnaterre, 1788)
37 441004 *Thunnus maccoyii* (Castelnau, 1872)
37 441011 *Thunnus obesus* (Lowe, 1839)
37 441026 *Thunnus thynnus* (Linnaeus, 1758)
37 441013 *Thunnus tonggol* (Bleeker, 1851)

— Commercial Groupings —
37 441909 Scombridae spp [*Sarda australis* & *Cybiosarda elegans* only]

— Imported Species —
37 441791 *Scomber japonicus* Houttuyn, 1782
37 441790 *Scomber scombrus* Linnaeus, 1758
37 441792 *Scomberomorus* spp

37 442000 — **FAMILY XIPHIIDAE** —
37 442001 *Xiphias gladius* Linnaeus, 1758

37 443000 — **FAMILY LUVARIDAE** —
37 443001 *Luvarus imperialis* Rafinesque, 1810

37 444000 — **FAMILY ISTIOPHORIDAE** —
37 444005 *Istiophorus platypterus* (Shaw & Nodder, 1792)
37 444006 *Makaira indica* (Cuvier, 1832)
37 444003 *Makaira mazara* (Jordan & Snyder, 1901)
37 444007 *Tetrapturus angustirostris* Tanaka, 1915
37 444002 *Tetrapturus audax* (Philipi, 1887)

37 445000 — **FAMILY CENTROLOPHIDAE** —
37 445004 *Centrolophus niger* (Gmelin, 1789)
37 445001 *Hyperoglyphe antarctica* (Carmichael, 1818)
37 445015 *Icichthys australis* Haedrich, 1966
37 445007 *Psenopsis humerosa* Munro, 1958
37 445018 *Psenopsis intermedia* Piontrovskiy, 1987
37 445016 *Psenopsis obscura* Haedrich, 1967
37 445003 *Schedophilus huttoni* (Waite, 1910)
37 445014 *Schedophilus labyrinthica* McAllister & Randall, 1975
37 445017 *Schedophilus maculatus* Günther, 1860
37 445005 *Seriolella brama* (Günther, 1860)
37 445011 *Seriolella caerulea* Guichenot, 1848
37 445006 *Seriolella punctata* (Forster, 1801)
37 445019 *Tubbia* sp. [in ISR Munro collection]
37 445002 *Tubbia tasmanica* Whitley, 1943

— **Commercial Groupings** —
37 445901 *Seriolella* spp

37 446000 — **FAMILY NOMEIDAE** —
37 446012 *Amarsipus carlsbergi* Haedrich, 1969
37 446006 *Cubiceps baxteri* McCulloch, 1923
37 446010 *Cubiceps caeruleus* Regan, 1914
37 446008 *Cubiceps pauciradiatus* Günther, 1872
37 446013 *Cubiceps whiteleggii* (Waite, 1894)
37 446009 *Nomeus gronovii* (Gmelin, 1789)
37 446011 *Psenes arafurensis* Günther, 1889
37 446015 *Psenes cyanophrys* Valenciennes, 1833
37 446016 *Psenes hillii* Ogilby, 1915
37 446001 *Psenes pellucidus* Lütken, 1880

37 447000 — **FAMILY ARIOMMATIDAE** —
37 447007 *Ariomma indica* (Day, 1870)
37 447003 *Ariomma* sp. [in Sainsbury *et al.*, 1985]

— **Commercial Groupings** —
37 447900 *Ariomma* spp

37 449000 — **FAMILY TETRAGONURIDAE** —
37 449001 *Tetragonurus cuvieri* Risso, 1810

37 457000 — **FAMILY PSETTODIDAE** —
37 457001 *Psettodes erumei* (Bloch & Schneider, 1801)

37 458000 — **FAMILY CITHARIDAE** —
37 458001 *Brachypleura novaezeelandiae* Günther, 1862

37 460000 — **FAMILY BOTHIDAE** —
37 460027 *Arnoglossus andrewsi* Kurth, 1954
37 460028 *Arnoglossus armstrongi* Scott, 1975
37 460021 *Arnoglossus aspilos* (Bleeker, 1851)
37 460029 *Arnoglossus bassensis* Norman, 1926
37 460040 *Arnoglossus elongatus* Weber, 1913
37 460043 *Arnoglossus fisoni* (Ogilby, 1898)
37 460034 *Arnoglossus japonicus* Hubbs, 1915
37 460030 *Arnoglossus muelleri* (Klunzinger, 1872)
37 460020 *Arnoglossus polyspilus* (Günther, 1880)
37 460059 *Arnoglossus* sp. [in Gomon *et al.*, 1994]

37 460044 *Arnoglossus tenuis* Günther, 1880
37 460045 *Arnoglossus waitei* Norman, 1926
37 460057 *Asterorhombus fijiensis* (Norman, 1931)
37 460046 *Asterorhombus intermedius* (Bleeker, 1866)
37 460047 *Bothus mancus* (Broussonet, 1782)
37 460042 *Bothus myriaster* (Temminck & Schlegel, 1846)
37 460048 *Bothus pantherinus* (Rüppell, 1830)
37 460049 *Chascanopsetta lugubris* Alcock, 1894
37 460058 *Crossorhombus howensis* Hensley & Randall, 1993
37 460019 *Crossorhombus kanekonis* (Tanaka, 1918)
37 460050 *Engyprosopon bleekeri* (Macleay, 1881)
37 460012 *Engyprosopon grandisquama* (Temminck & Schlegel, 1846)
37 460039 *Engyprosopon longipelvis* Amaoka, 1969
37 460013 *Engyprosopon maculipinnis* (Rendahl, 1921)
37 460024 *Engyprosopon* sp. 1 [in Sainsbury *et al.*, 1985]
37 460014 *Engyprosopon* sp. 2 [in Sainsbury *et al.*, 1985]
37 460016 *Grammatobothus pennatus* (Ogilby, 1913)
37 460010 *Grammatobothus polyophthalmus* (Bleeker, 1866)
37 460006 *Kamoharia megastoma* (Kamohara, 1936)
37 460051 *Laeops lanceolata* Franz, 1910
37 460022 *Laeops parviceps* Günther, 1880
37 460001 *Lophonectes gallus* Günther, 1880
37 460052 *Mancopsetta milfordi* Penrith, 1965
37 460053 *Parabothus kiensis* (Tanaka, 1918)
37 460033 *Psettina gigantea* Amaoka, 1963
37 460017 *Psettina iijimae* (Jordan & Starks, 1904)
37 460026 *Psettina tosana* Amaoka, 1963
37 460054 *Pseudorhombus anomalus* Ogilby, 1912
37 460038 *Pseudorhombus argus* Weber, 1913
37 460009 *Pseudorhombus arsius* (Hamilton, 1822)
37 460032 *Pseudorhombus* cf *dupliciocellatus* Regan, 1905
37 460015 *Pseudorhombus diplospilus* Norman, 1926
37 460004 *Pseudorhombus dupliciocellatus* Regan, 1905
37 460008 *Pseudorhombus elevatus* Ogilby, 1912
37 460002 *Pseudorhombus jenynsii* (Bleeker, 1855)
37 460035 *Pseudorhombus megalops* Fowler, 1934
37 460055 *Pseudorhombus moorei* Thominot, 1880
37 460056 *Pseudorhombus multimaculatus* Günther, 1862
37 460060 *Pseudorhombus neglectus* Bleeker, 1866
37 460025 *Pseudorhombus quinquocellatus* Weber & de Beaufort, 1929
37 460011 *Pseudorhombus spinosus* McCulloch, 1914
37 460031 *Pseudorhombus tenuirastrum* (Waite, 1899)

37 461000 **— FAMILY PLEURONECTIDAE —**
37 461016 *Ammotretis brevipinnis* Norman, 1926
37 461007 *Ammotretis elongatus* McCulloch, 1914
37 461004 *Ammotretis lituratus* (Richardson, 1843)
37 461012 *Ammotretis macrolepis* McCulloch, 1914
37 461001 *Ammotretis rostratus* Günther, 1862
37 461002 *Azygopus pinnifasciatus* Norman, 1926
37 461018 *Lepidoblepharon ophthalmolepis* Weber, 1913
37 461019 *Nematops macrochirus* Norman, 1931
37 461020 *Nematops microstoma* Günther, 1880
37 461026 *Plagiopsetta glossa* Franz, 1910
37 461021 *Poecilopsetta plinthus* (Jordan & Starks, 1904)
37 461022 *Poecilopsetta praelonga* Alcock, 1894
37 461013 *Poecilopsetta* sp. [in Sainsbury *et al.*, 1985]
37 461009 *Psammodiscus ocellatus* Günther, 1862
37 461003 *Rhombosolea tapirina* Günther, 1862
37 461006 *Samaris cristatus* Gray, 1831
37 461015 *Samariscus huysmani* Weber, 1913
37 461025 *Samariscus triocellatus* Woods, 1966
37 461011 *Taratretis derwentensis* Last, 1978

— Commercial Groupings —
37 461900 *Ammotretis* spp

— Imported Species —
37 461795 *Atheresthes* spp
37 461790 *Colistium guntheri* (Hutton, 1873)
37 461796 *Pelotretis flavilatus* Waite, 1911
37 461794 *Peltorhamphus novaezeelandiae* Günther, 1862
37 461792 *Pleuronectes platessa* Linnaeus, 1758
37 461793 *Reinhardtius hippoglossoides* (Walbaum, 1792)
37 461791 *Rhombosolea* spp [*R. retiaria* Hutton, 1874, *R. plebeia* (Richardson, 1842) & *R. leporina* Günther, 1873 only]

37 462000 **— FAMILY SOLEIDAE —**
37 462017 *Achlyopa nigra* (Macleay, 1881)
37 462001 *Aesopia cornuta* Kaup, 1858
37 462011 *Aesopia* sp. [in Sainsbury *et al.*, 1985]
37 462019 *Aseraggodes bahamondei* Randall & Meléndez, 1987
37 462020 *Aseraggodes haackeanus* (Steindachner, 1883)
37 462021 *Aseraggodes klunzingeri* (Weber, 1908)
37 462012 *Aseraggodes melanospilus* (Bleeker, 1854)
37 462016 *Aseraggodes melanostictus* (Peters, 1876)
37 462002 *Aseraggodes normani* Chabanaud, 1930
37 462038 *Aseraggodes ramsaii* (Ogilby, 1889)
37 462040 *Aseraggodes* sp. [see Kuiter, 1993]
37 462007 *Dexillus muelleri* (Steindachner, 1879)
37 462022 *Euryglossa breviceps* (Ogilby, 1910)
37 462023 *Euryglossa fitzroiensis* (De Vis, 1883)
37 462025 *Euryglossa salinarum* (Ogilby, 1910)
37 462026 *Euryglossa selheimi* (Macleay, 1882)
37 462027 *Haplozebrias fasciatus* (Macleay, 1882)
37 462041 *Liachirus whitleyi* Chabanaud, 1950
37 462028 *Microbuglossus humilis* (Cantor, 1850)
37 462029 *Pardachirus hedleyi* Ogilby, 1916
37 462009 *Pardachirus pavoninus* (Lacépède, 1802)
37 462030 *Pardachirus poropterus* (Bleeker, 1851)
37 462008 *Pardicula setifer* (Paradice, 1927)
37 462005 *Phyllichthys punctatus* McCulloch, 1916
37 462031 *Phyllichthys sclerolepis* (Macleay, 1878)
37 462032 *Rendahlia jaubertensis* (Rendahl, 1921)
37 462015 *Soleichthys heterorhinos* (Bleeker, 1856)
37 462034 *Soleichthys lineatus* (Ramsay, 1883)
37 462033 *Soleichthys microcephalus* (Günther, 1862)
37 462006 *Strabozebrias cancellatus* (McCulloch, 1916)
37 462039 *Strabozebrias munroi* Whitley, 1966
37 462014 *Synaptura annularis* (Fowler, 1934)
37 462035 *Synaptura aspilos* Bleeker, 1852
37 462024 *Synaptura orientalis* (Bloch & Schneider, 1801)
37 462018 *Synclidopus macleayanus* (Ramsay, 1881)
37 462003 *Zebrias craticula* (McCulloch, 1916)
37 462036 *Zebrias penescalaris* Gomon, 1987
37 462004 *Zebrias quagga* (Kaup, 1858)
37 462010 *Zebrias scalaris* Gomon, 1987
37 462037 *Zebrias zebrinus* (Temminck & Schlegel, 1846)

— Imported Species —
37 462790 *Solea solea* (Linnaeus, 1758)

37 463000 **— FAMILY CYNOGLOSSIDAE —**
37 463013 *Cynoglossus bilineatus* (Bloch, 1787)
37 463015 *Cynoglossus broadhursti* Waite, 1905
37 463010 *Cynoglossus* cf *joyneri* Günther, 1878
37 463016 *Cynoglossus heterolepis* Weber, 1910
37 463006 *Cynoglossus kopsii* (Bleeker, 1851)
37 463008 *Cynoglossus macrophthalmus* Norman, 1926
37 463003 *Cynoglossus maculipinnis* Rendahl, 1921
37 463017 *Cynoglossus ogilbyi* Norman, 1926
37 463018 *Cynoglossus puncticeps* (Richardson, 1846)
37 463019 *Paraplagusia acumineata* (Bloch, 1787)
37 463001 *Paraplagusia bilineata* (Bloch, 1787)
37 463007 *Paraplagusia blochii* (Bleeker, 1851)
37 463002 *Paraplagusia longirostris* Chapleau, Renaud & Kailola, 1991
37 463022 *Paraplagusia sinerama* Chapleau & Renaud, 1993
37 463020 *Symphurus australis* McCulloch, 1907
37 463014 *Symphurus* sp. A [Last]
37 463021 *Symphurus* sp. B [Last]

37 464000 **— FAMILY TRIACANTHIDAE —**
37 464008 *Pseudotriacanthus strigilifer* (Cantor, 1849)
37 464002 *Triacanthus biaculeatus* (Bloch, 1786)
37 464009 *Triacanthus nieuhofi* Bleeker, 1852
37 464007 *Tripodichthys angustifrons* (Hollard, 1854)
37 464006 *Tripodichthys blochi* (Bleeker, 1852)
37 464005 *Tripodichthys oxycephalus* (Bleeker, 1851)
37 464001 *Trixiphichthys weberi* (Chaudhuri, 1910)

37 464000 — **FAMILY TRIACANTHODIDAE** —
37 464010 *Bathyphylax bombifrons* Myers, 1934
37 464011 *Bathyphylax omen* Tyler, 1966
37 464012 *Halimochirurgus alcocki* Weber, 1913
37 464013 *Halimochirurgus centriscoides* Alcock, 1899
37 464004 *Macrorhamphosodes platycheilus* Fowler, 1934
37 464014 *Macrorhamphosodes uradoi* (Kamohara, 1933)
37 464015 *Paratriacanthodes herrei* Myers, 1934
37 464016 *Paratriacanthodes retrospinis* Fowler, 1934
37 464003 *Triacanthodes ethiops* Alcock, 1894
37 464017 *Tydemania navigatoris* Weber, 1913

37 465000 — **FAMILY BALISTIDAE** —
37 465011 *Abalistes stellaris* (Bloch & Schneider, 1801)
37 465047 *Balistapus undulatus* (Park, 1797)
37 465031 *Balistoides conspicillum* (Bloch & Schneider, 1801)
37 465048 *Balistoides viridescens* (Bloch & Schneider, 1801)
37 465081 *Melichthys niger* (Bloch, 1786)
37 465058 *Melichthys vidua* (Solander, 1844)
37 465061 *Odonus niger* (Rüppell, 1837)
37 465083 *Pseudalutarius nasicornis* (Temminck & Schlegel, 1850)
37 465071 *Pseudobalistes flavimarginatus* (Rüppell, 1829)
37 465027 *Pseudobalistes fuscus* (Bloch & Schneider, 1801)
37 465028 *Rhinecanthus aculeatus* (Linnaeus, 1758)
37 465072 *Rhinecanthus lunula* Randall & Steene, 1983
37 465073 *Rhinecanthus rectangulus* (Bloch & Schneider, 1801)
37 465074 *Rhinecanthus verrucosus* (Linnaeus, 1758)
37 465078 *Sufflamen bursa* (Bloch & Schneider, 1801)
37 465079 *Sufflamen chrysopterus* (Bloch & Schneider, 1801)
37 465014 *Sufflamen fraenatus* (Latreille, 1804)
37 465080 *Xanthichthys auromarginatus* (Bennett, 1832)
37 465016 *Xanthichthys lineopunctatus* (Hollard, 1854)

— **Commercial Groupings** —
37 465900 Balistidae spp

37 465000 — **FAMILY MONACANTHIDAE** —
37 465043 *Acanthaluteres spilomelanurus* (Quoy & Gaimard, 1824)
37 465002 *Acanthaluteres vittiger* (Castelnau, 1873)
37 465044 *Acreichthys radiatus* (Popta, 1900)
37 465042 *Acreichthys tomentosus* (Linnaeus, 1758)
37 465022 *Aluterus monoceros* (Linnaeus, 1758)
37 465045 *Aluterus scriptus* (Osbeck, 1765)
37 465046 *Amanses scopas* (Cuvier, 1829)
37 465010 *Anacanthus barbatus* Gray, 1831
37 465001 *Bigener brownii* (Richardson, 1846)
37 465025 *Brachaluteres jacksonianus* (Quoy & Gaimard, 1824)
37 465049 *Brachaluteres taylori* Woods, 1966
37 465050 *Cantherhines dumerili* (Hollard, 1854)
37 465041 *Cantherhines fronticinctus* (Günther, 1866)
37 465051 *Cantherhines pardalis* (Rüppell, 1837)
37 465052 *Cantheschenia grandisquamis* Hutchins, 1977
37 465053 *Cantheschenia longipinnis* (Fraser-Brunner, 1941)
37 465013 *Chaetodermis penicilligera* (Cuvier, 1817)
37 465054 *Colurodontis paxmani* Hutchins, 1977
37 465039 *Eubalichthys bucephalus* (Whitley, 1931)
37 465018 *Eubalichthys caeruleoguttatus* Hutchins, 1977
37 465055 *Eubalichthys cyanoura* Hutchins, 1987
37 465034 *Eubalichthys gunnii* (Günther, 1870)
37 465003 *Eubalichthys mosaicus* (Ramsay & Ogilby, 1886)
37 465032 *Eubalichthys quadrispinis* Hutchins, 1977
37 465008 *Meuschenia australis* (Donovan, 1824)
37 465035 *Meuschenia flavolineata* Hutchins, 1977
37 465036 *Meuschenia freycineti* (Quoy & Gaimard, 1824)
37 465040 *Meuschenia galii* (Waite, 1905)
37 465004 *Meuschenia hippocrepis* (Quoy & Gaimard, 1824)
37 465005 *Meuschenia scaber* (Forster, 1801)
37 465059 *Meuschenia trachylepis* (Günther, 1870)
37 465060 *Meuschenia venusta* Hutchins, 1977
37 465009 *Monacanthus chinensis* (Osbeck, 1765)
37 465006 *Nelusetta ayraudi* (Quoy & Gaimard, 1824)
37 465062 *Oxymonacanthus longirostris* (Bloch & Schneider, 1801)
37 465063 *Paraluteres prionurus* (Bleeker, 1851)
37 465064 *Paramonacanthus choirocephalus* (Bleeker, 1852)
37 465082 *Paramonacanthus cingalensis* (Fraser-Brunner, 1941)
37 465024 *Paramonacanthus filicauda* (Günther, 1880)

37 465017 *Paramonacanthus japonicus* (Tilesius, 1810)
37 465030 *Paramonacanthus nipponensis* (Komohara, 1939)
37 465065 *Paramonacanthus otisensis* Whitley, 1931
37 465066 *Pervagor alternans* (Ogilby, 1899)
37 465067 *Pervagor aspricaudus* (Hollard, 1854)
37 465068 *Pervagor janthinosoma* (Bleeker, 1854)
37 465069 *Pervagor melanocephalus* (Bleeker, 1853)
37 465070 *Pervagor nigrolineatus* (Herre, 1927)
37 465029 *Pseudomonacanthus elongatus* Fraser-Brunner, 1940
37 465020 *Pseudomonacanthus peroni* (Hollard, 1854)
37 465075 *Rudarius excelsus* Hutchins, 1977
37 465076 *Rudarius minutus* Tyler, 1970
37 465007 *Scobinichthys granulatus* (White, 1790)
37 465077 *Stephanolepis* sp. [in Allen & Swainston, 1988]
37 465084 *Thamnaconus analis* (Waite, 1904)
37 465037 *Thamnaconus degeni* (Regan, 1903)
37 465012 *Thamnaconus hypargyreus* (Cope, 1871)
37 465038 *Thamnaconus modestoides* (Barnard, 1927)
37 465019 *Thamnaconus striatus* (Kotthaus, 1979)
37 465026 *Thamnaconus tessellatus* (Günther, 1880)

— Commercial Groupings —

37 465901 Monacanthidae spp [except *Meuschenia freycineti, M. scaber* & *Nelusetta ayraudi*]

37 466000 **— FAMILY OSTRACIIDAE —**
37 466015 *Anoplocapros amygdaloides* Fraser-Brunner, 1941
37 466002 *Anoplocapros inermis* (Fraser-Brunner, 1935)
37 466010 *Anoplocapros lenticularis* (Richardson, 1841)
37 466003 *Aracana aurita* (Shaw, 1798)
37 466001 *Aracana ornata* (Gray, 1838)
37 466014 *Caprichthys gymnura* McCulloch & Waite, 1915
37 466011 *Capropygia unistriata* Kaup, 1855
37 466023 *Kentrocapros flavofasciatus* (Kamohara, 1938)
37 466022 *Lactoria concatenatus* (Bloch, 1786)
37 466004 *Lactoria cornuta* (Linnaeus, 1758)
37 466007 *Lactoria diaphana* (Bloch & Schneider, 1801)
37 466018 *Lactoria fornasini* (Bianconi, 1846)
37 466006 *Lactoria gibbosus* (Linnaeus, 1758)
37 466008 *Lactoria reipublicae* (Ogilby, 1913)
37 466013 *Ostracion cubicus* Linnaeus, 1758
37 466019 *Ostracion meleagris* Shaw, 1796
37 466005 *Ostracion nasus* Bloch, 1785
37 466009 *Ostracion rhinorhynchus* Bleeker, 1852
37 466020 *Ostracion solorensis* Bleeker, 1853
37 466021 *Polyplacapros tyleri* Fujii & Uyeno, 1979

37 467000 **— FAMILY TETRAODONTIDAE —**
37 467024 *Arothron aerostaticus* (Jenyns, 1842)
37 467005 *Arothron firmamentum* (Temminck & Schlegel, 1850)
37 467033 *Arothron hispidus* (Linnaeus, 1758)
37 467034 *Arothron immaculatus* (Bloch & Schneider, 1801)
37 467020 *Arothron manilensis* (de Proce, 1822)
37 467035 *Arothron mappa* (Lesson, 1830)
37 467064 *Arothron meleagris* (Bloch & Schneider, 1801)
37 467027 *Arothron nigropunctatus* (Bloch & Schneider, 1801)
37 467021 *Arothron reticularis* (Bloch & Schneider, 1801)
37 467014 *Arothron stellatus* (Bloch & Schneider, 1801)
37 467036 *Canthigaster amboinensis* (Bleeker, 1865)
37 467037 *Canthigaster bennetti* (Bleeker, 1854)
37 467038 *Canthigaster callisterna* (Ogilby, 1889)
37 467013 *Canthigaster coronata* (Vaillant & Sauvage, 1875)
37 467039 *Canthigaster epilampra* (Jenkins, 1903)
37 467040 *Canthigaster janthinoptera* (Bleeker, 1855)
37 467041 *Canthigaster ocellicincta* Allen & Randall, 1977
37 467018 *Canthigaster rivulata* (Temminck & Schlegel, 1850)
37 467042 *Canthigaster solandri* (Richardson, 1844)
37 467043 *Canthigaster valentini* (Bleeker, 1853)
37 467015 *Chelonodon patoca* (Hamilton-Buchanan, 1822)
37 467044 *Contusus brevicaudas* Hardy, 1981
37 467001 *Contusus richei* (Fréminville, 1813)
37 467010 *Feroxodon multistriatus* (Richardson, 1854)
37 467008 *Lagocephalus inermis* (Temminck & Schlegel, 1850)
37 467023 *Lagocephalus lagocephalus* (Linnaeus, 1758)

37 467012 *Lagocephalus lunaris* (Bloch & Schneider, 1801)
37 467007 *Lagocephalus sceleratus* (Gmelin, 1789)
37 467017 *Lagocephalus spadiceus* (Richardson, 1844)
37 467045 *Liosaccus aerobaticus* Whitley, 1928
37 467046 *Marilyna darwinii* (Castelnau, 1873)
37 467047 *Marilyna meraukensis* (de Beaufort, 1955)
37 467032 *Marilyna pleurosticta* (Günther, 1872)
37 467002 *Omegophora armilla* (Waite & McCulloch, 1915)
37 467048 *Omegophora cyanopunctata* Hardy & Hutchins, 1981
37 467049 *Polyspina piosae* (Whitley, 1955)
37 467050 *Reicheltia halsteadi* (Whitley, 1957)
37 467051 *Sphoeroides liosomus* Regan, 1909
37 467052 *Sphoeroides marmoratus* (Castelnau, 1873)
37 467053 *Sphoeroides oblongus* (Bloch, 1786)
37 467004 *Sphoeroides pachygaster* (Müller & Troschel, 1848)
37 467019 *Takifugu poecilonotus* (Temminck & Schlegel, 1850)
37 467003 *Tetractenos glaber* (Fréminville, 1813)
37 467054 *Tetractenos hamiltoni* (Gray & Richardson, 1843)
37 467031 *Tetraodon erythrotaenia* Bleeker, 1853
37 467055 *Tetraodon staigeri* Castelnau, 1878
37 467056 *Torquigener altipinnis* (Ogilby, 1891)
37 467057 *Torquigener andersonae* Hardy, 1983
37 467026 *Torquigener hicksi* Hardy, 1983
37 467058 *Torquigener hypselogeneion* (Bleeker, 1852)
37 467009 *Torquigener pallimaculatus* Hardy, 1983
37 467029 *Torquigener parcuspinus* Hardy, 1983
37 467059 *Torquigener paxtoni* Hardy, 1983
37 467060 *Torquigener perlevis* (Ogilby, 1908)
37 467030 *Torquigener pleurogramma* (Regan, 1903)
37 467061 *Torquigener squamicauda* (Ogilby, 1911)
37 467062 *Torquigener tuberculiferus* (Ogilby, 1912)
37 467063 *Torquigener vicinus* Whitley, 1930
37 467028 *Torquigener whitleyi* (Paradice, 1927)
37 467022 *Tylerius spinosissimus* (Regan, 1908)

37 468000 **— FAMILY TRIODONTIDAE —**
37 468001 *Triodon macropterus* Lesson, 1830

37 469000 **— FAMILY DIODONTIDAE —**
37 469002 *Allomycterus pilatus* Whitley, 1931
37 469014 *Chilomycterus reticulatus* (Linnaeus, 1758)
37 469008 *Cyclichthys hardenbergi* (de Beaufort, 1939)
37 469007 *Cyclichthys orbicularis* (Bloch, 1785)
37 469003 *Cyclichthys spilostylus* (Leis & Randall, 1982)
37 469013 *Dicotylichthys punctulatus* Kaup, 1855
37 469005 *Diodon holocanthus* Linnaeus, 1758
37 469015 *Diodon hystrix* Linnaeus, 1758
37 469016 *Diodon liturosus* Shaw, 1804
37 469001 *Diodon nicthemerus* Cuvier, 1818
37 469010 *Lophodiodon calori* (Bianconi, 1855)
37 469004 *Tragulichthys jaculiferus* (Cuvier, 1818)

37 470000 **— FAMILY MOLIDAE —**
37 470003 *Masturus lanceolatus* (Liénard, 1840)
37 470002 *Mola mola* (Linnaeus, 1758)
37 470001 *Mola ramsayi* (Giglioli, 1883)
37 470004 *Ranzania laevis* (Pennant, 1776)

7.5 Appendix E: Australian commercial finfish and shellfish

This is a list of Australian commercial finfish and shellfish (including imported species) with current CAAB codes. Species listed here are those included in *Marketing Names for Fish and Seafood in Australia* (Anon., 1995) and are ordered alphabetically by marketing name.

MARKETING NAME	CAAB CODE	SCIENTIFIC NAME
ABALONE — Blacklip	00 662001	*Haliotis rubra*
ABALONE — Brownlip	00 662004	*Haliotis conicopora*
ABALONE — Greenlip	00 662002	*Haliotis laevigata*
ABALONE — Roes	00 662003	*Haliotis roei*
ALBACORE	37 441005	*Thunnus alalunga*
ALFONSINO	37 258002	*Beryx splendens*
ANCHOVY	37 086001	*Engraulis australis*
AUSTRALIAN HERRING	37 344001	*Arripis georgianus*
AUSTRALIAN SALMON	37 344900	*Arripis trutta* and *A. truttaceus*
BARRACOUTA	37 439001	*Thyrsites atun*
BARRAMUNDI	37 310006	*Lates calcarifer*
BECHE-DE-MER	00 708100	*Holothuriidae* and *Stichopodidae*
BLUE EYE	37 445001	*Hyperoglyphe antarctica*
BLUE WHITING — Southern	37 226795	*Micromesistius australis*
BOARFISH	37 367003	*Pentaceropsis recurvirostris*
BOARFISH — Bigspine	37 367004	*Pentaceros decacanthus*
BOARFISH — Black Spotted	37 367005	*Zanclistius elevatus*
BOARFISH — Giant	37 367901	*Paristiopterus labiosus* and *P. gallipavo*
BONITO — Australian	37 441020	*Sarda australis*
BONITO — Oriental	37 441006	*Sarda orientalis*
BREAM — Black	37 353003	*Acanthopagrus butcheri*
BREAM — Bony	37 085902	*Nematalosa erebi* and *N. vlaminghi*
BREAM — Pikey	37 353011	*Acanthopagrus berda*
BREAM — Yellowfin	37 353004	*Acanthopagrus australis*
BRILL	37 461790	*Colistium guntheri*
BUG	00 703906	*Ibacus alticrenatus, Polycheles typhlops, Scyllarides squammosus* and *S. haanii*
BUG — Balmain	00 703028	*Ibacus peronii*
BUG — Moreton Bay	00 700002	*Thenus orientalis*
BULLSEYE — Red	37 326901	*Priacanthus* spp
BUTTERFISH	37 363001	*Scatophagus multifasciatus*
CALAMARI — Northern	00 620012	*Sepioteuthis lessoniana* and *Loligo edulis*
CALAMARI — Southern	00 600003	*Sepioteuthis australis*
CARDINAL FISH	37 327035	*Epigonus telescopus*
CARP — European	37 165003	*Cyprinus carpio*
CATFISH — Blue	37 188005	*Arius graeffei*
CATFISH — Freshwater	37 192006	*Tandanus tandanus*
CLAM — Baby	00 659002	*Meretrix* spp
COBBLER	37 192001	*Cnidoglanis macrocephalus*
COBBLER — Silver	37 188010	*Arius midgleyi*
COCKLE	00 657901	*Katelysia* and *Anadara* spp

COD — Atlantic	37 226790	*Gadus morhua*
COD — Barramundi	37 311044	*Cromileptes altivelis*
COD — Blue	37 390790	*Parapercis colias*
COD — Coral	37 311904	*Cephalopholis* spp
COD — Murray	37 311903	*Maccullochella* spp
COD — Pacific	37 226791	*Gadus macrocephalus*
COD — Red	37 224006	*Pseudophycis bachus*
COD — Rock	37 311901	*Epinephelus, Anyperodon* and *Aethaloperca* spp
COD — Southern Rock	37 224900	*Pseudophycis barbata* and *Lotella* spp
COLEY	37 226796	*Pollachius virens*
CONWAY	37 369002	*Oplegnathus woodwardi*
CRAB	00 702904	Infraorder Brachyura
CRAB — Blue Swimmer	00 702003	*Portunus pelagicus*
CRAB — Giant	00 701001	*Pseudocarcinus gigas*
CRAB — Mud	00 702001	*Scylla serrata*
CRAB — Sand	00 702901	*Ovalipes* spp
CRAB — Snow	00 702906	*Chionoecetes bairdii* and *C. opilio*
CRAB — Spanner	00 702002	*Ranina ranina*
CUTTLEFISH	00 610008	*Sepia* spp
DART	37 337904	*Trachinotus* spp
DHUFISH — West Australian	37 320004	*Glaucosoma hebraicum*
DOGFISH — Endeavour	37 020902	*Centrophorus moluccensis, C. harrisoni* and *C. uyato*
DOGFISH — Greeneye	37 020901	*Squalus* spp
DOGFISH — Spikey	37 020006	*Squalus megalops*
DOGFISH — White Spotted	37 020008	*Squalus acanthias*
DOGSHARK — Indian	37 018790	*Scoliodon laticaudus*
DORY — John	37 264004	*Zeus faber*
DORY — King	37 264001	*Cyttus traversi*
DORY — Mirror	37 264003	*Zenopsis nebulosus*
DORY — Silver	37 264002	*Cyttus australis*
EEL — Conger	37 067900	*Conger verreauxi* and *C. wilsoni*
EEL — Longfin	37 056002	*Anguilla reinhardtii*
EEL — Shortfin	37 056001	*Anguilla australis*
ELEPHANT FISH	37 043001	*Callorhinchus milii*
EMPEROR	37 351902	*Lethrinus* spp
EMPEROR — Red	37 346004	*Lutjanus sebae*
ESCOLAR	37 439003	*Ruvettus pretiosus*
FLATHEAD	37 296000	Platycephalidae
FLATHEAD — Bartail	37 296033	*Platycephalus indicus*
FLATHEAD — Bluespot	37 296007	*Platycephalus caeruleopunctatus*
FLATHEAD — Deepwater	37 296002	*Neoplatycephalus conatus*
FLATHEAD — Dusky	37 296004	*Platycephalus fuscus*
FLATHEAD — Northern Sand	37 296021	*Platycephalus arenarius*

FLATHEAD — Rock	37 296006	*Platycephalus laevigatus*
FLATHEAD — Sand	37 296003	*Platycephalus bassensis*
FLATHEAD — Southern	37 296037	*Platycephalus speculator*
FLATHEAD — Tiger	37 296001	*Neoplatycephalus richardsoni*
FLOUNDER — Arrowtooth	37 461795	*Atheresthes* spp
FLOUNDER — Bay	37 461900	*Ammotretis* spp
FLOUNDER — Greenback	37 461003	*Rhombosolea tapirina*
FLOUNDER — New Zealand	37 461791	*Rhombosolea retiaria, R. plebeia* and *R. leporina*
GARFISH — Eastern Sea	37 234014	*Hyporhamphus australis*
GARFISH — Northern	37 234900	*Arrhamphus sclerolepis* and *Hemiramphus robustus*
GARFISH — River	37 234012	*Hyporhamphus regularis*
GARFISH — Southern	37 234001	*Hyporhamphus melanochir*
GEMFISH	37 439002	*Rexea solandri*
GOLDFISH	37 165001	*Carassius auratus*
GRENADIER — Blue	37 227001	*Macruronus novaezelandiae*
GRUNTER	37 350902	*Pomadasys* spp
GURNARD — Butterfly	37 288901	*Lepidotrigla* spp
GURNARD — Red	37 288001	*Chelidonichthys kumu*
HADDOCK	37 226792	*Melanogrammus aeglefinus*
HAKE — Cape	37 227790	*Merluccius capensis*
HAKE — Pacific	37 227791	*Merluccius gayi*
HAKE — South Atlantic	37 227792	*Merluccius hubbsi*
HAKE — Southern	37 227002	*Merluccius australis*
HAPUKU	37 311902	*Polyprion americanus* and *P. oxygeneios*
HERRING	37 085790	*Clupea harengus*
HUSSAR	37 346033	*Lutjanus adetii*
IMPERADOR	37 258001	*Beryx decadactylus*
JELLYFISH	00 670001	*Catostylus* and *Phyllorhiza* spp
JEWFISH — Black	37 354003	*Protonibea diacanthus*
JOBFISH — Green	37 346027	*Aprion virescens*
KINGFISH — Black	37 335001	*Rachycentron canadum*
KINGFISH — Yellowtail	37 337006	*Seriola lalandi*
LATCHET	37 288006	*Pterygotrigla polyommata*
LEATHERJACKET	37 465000	Monacanthidae
LEATHERJACKET — Reef	37 465036	*Meuschenia freycineti*
LEATHERJACKET — Velvet	37 465005	*Meuschenia scaber*
LING	37 228901	*Genypterus* spp
LUDERICK	37 361007	*Girella tricuspidata*
MACKEREL — Atlantic	37 441790	*Scomber scombrus*
MACKEREL — Blue	37 441001	*Scomber australasicus*
MACKEREL — Chub	37 441791	*Scomber japonicus*
MACKEREL — Frigate	37 441009	*Auxis thazard*
MACKEREL — Grey	37 441018	*Scomberomorus semifasciatus*

MACKEREL — Indo Pacific	37 441792	*Scomberomorus* spp
MACKEREL — Jack	37 337002	*Trachurus declivis*
MACKEREL — School	37 441014	*Scomberomorus queenslandicus*
MACKEREL — Shark	37 441025	*Grammatorycnus bicarinatus*
MACKEREL — Spanish	37 441007	*Scomberomorus commerson*
MACKEREL — Spotted	37 441015	*Scomberomorus munroi*
MARRON	00 704004	*Cherax tenuimanus*
MOONFISH	37 268900	*Lampris guttatus* and *L. immaculatus*
MORWONG	37 377901	*Nemadactylus* spp
MORWONG — Blue	37 377004	*Nemadactylus valenciennesi*
MULLET	37 381000	Mugilidae
MULLET — Diamond Scale	37 381008	*Liza vaigiensis*
MULLET — Sea	37 381002	*Mugil cephalus*
MULLOWAY	37 354001	*Argyrosomus japonicus*
MUSSEL — Blue	00 652001	*Mytilus edulis*
MUSSEL — Green	00 652002	*Perna canaliculus*
OCEAN JACKET	37 465006	*Nelusetta ayraudi*
OCEAN PERCH	37 287901	*Helicolenus barathri* and *H. percoides*
OCEAN PERCH — Atlantic	37 287790	*Sebastes marinus, S. mentella* and *S. viviparus*
OCTOPUS	00 601001	*Octopus* spp
OREO — Black	37 266901	*Allocyttus niger* and *A. verrucosus*
OREO — Smooth	37 266003	*Pseudocyttus maculatus*
OREO — Spikey	37 266001	*Neocyttus rhomboidalis*
OYSTER	00 653003	*Ostreidae* and *Pteriidae*
OYSTER — Native	00 653004	*Ostrea angasi*
OYSTER — Pacific	00 653002	*Crassostrea gigas*
OYSTER — Pearl	00 653005	*Pinctada* spp
OYSTER — Sydney Rock	00 653001	*Saccostrea commercialis*
PARROT FISH	37 386000	Scaridae
PAUA	00 662005	*Haliotis iris*
PERCH — Golden	37 311075	*Macquaria ambigua*
PERCH — Nile	37 310790	*Lates niloticus*
PERCH — Pearl	37 320901	*Glaucosoma* spp
PERCH — Sea	37 346905	*Lutjanus* spp
PERCH — Silver	37 321008	*Bidyanus bidyanus*
PERIWINKLE	00 664001	*Littorina unifasciata*
PIKE	37 382002	*Sphyraena novaehollandiae*
PIKE — Striped Sea	37 382901	*Sphyraena* spp
PILCHARD	37 085002	*Sardinops neopilchardus*
PIPI	00 654001	*Plebidonax* spp
PLAICE	37 461792	*Pleuronectes platessa*
POLLACK — Alaska	37 226793	*Theragra chalcogramma*
POMFRET	37 448900	*Pampus* spp

PRAWN	00 701926	Infraorders Penaeidea and Caridea
PRAWN — Banana	00 701925	*Penaeus merguiensis* and *P. indicus*
PRAWN — Bay	00 701340	*Metapenaeus bennettae* and *M. insolitus*
PRAWN — Black Tiger	00 701908	*Penaeus monodon*
PRAWN — Endeavour	00 701903	*Metapenaeus endeavouri* and *M. ensis*
PRAWN — Freshwater	00 701073	*Macrobrachium* spp
PRAWN — King	00 701923	*Penaeus plebejus, P. latisulcatus* and *P. longistylus*
PRAWN — Royal Red	00 701004	*Haliporoides sibogae*
PRAWN — School	00 701341	*Metapenaeus* spp
PRAWN — Tiger	00 701900	*Penaeus esculentus, P. semisulcatus* and *P. japonicus*
QUEENFISH	37 337905	*Scomberoides* spp
RAY	37 990001	Pristidae, Rhynchobatidae, Rhinobatidae, Dasyatididae, Urolophidae and Myliobatididae
RAYS BREAM	37 342901	*Brama, Taractichthys* and *Xenobrama* spp
REDBAIT	37 345901	*Emmelichthys* spp
REDCLAW	00 704003	*Cherax quadricarinatus*
REDFIN	37 329001	*Perca fluviatilis*
REDFISH	37 258003	*Centroberyx affinis*
REDFISH — Bight	37 258004	*Centroberyx gerrardi*
RED MULLET	37 355000	Mullidae
RIBALDO	37 224002	*Mora moro*
RIBBONFISH	37 440002	*Lepidopus caudatus*
ROCK LOBSTER — Eastern	00 703013	*Jasus verreauxi*
ROCK LOBSTER — Southern	00 703014	*Jasus edwardsii*
ROCK LOBSTER — Tropical	00 703904	*Panulirus ornatus, P. homarus, P. polyphagus, P. penicillatus, P. versicolor* and *P. longipes*
ROCK LOBSTER — Western	00 703999	*Panulirus cygnus*
ROUGHY — Orange	37 255009	*Hoplostethus atlanticus*
RUBYFISH	37 345900	*Plagiogeneion* spp
SALMON	37 094901	*Oncorhynchus* spp
SALMON — Atlantic	37 094001	*Salmo salar*
SAMSON FISH	37 337007	*Seriola hippos*
SCALLOP	00 900208	*Chlamys asperrimus* and *C. bifrons*
SCALLOP — Commercial	00 651001	*Pecten fumatus*
SCALLOP — Saucer	00 651006	*Amusium* spp
SCAMPI	00 703905	*Metanephrops* and *Nephropsis* spp
SHARK — Angel	37 024900	*Squatina* spp
SHARK — Black Tip	37 018901	*Carcharhinus* spp
SHARK — Blue Whaler	37 018004	*Prionace glauca*
SHARK — Broadnose	37 005002	*Notorhynchus cepedianus*
SHARK — Bronze Whaler	37 018902	*Carcharhinus brachyurus* and *C. obscurus*
SHARK — Gummy	37 017901	*Mustelus* spp
SHARK — Saw	37 023900	*Pristiophorus* spp

SHARK — School	37 017008	*Galeorhinus galeus*
SHARK — Whiskery	37 017003	*Furgaleus macki*
SHRIMP — Brine	00 701924	*Artemia* spp
SKATE	37 031000	Rajidae
SNAPPER	37 353001	*Pagrus auratus*
SNAPPER — Goldband	37 346901	*Pristipomoides multidens* and *P. typus*
SNAPPER — King	37 346032	*Pristipomoides filamentosus*
SOLE — Dover	37 462790	*Solea solea*
SOLE — Lemon	37 461796	*Pelotretis flavilatus*
SOLE — New Zealand	37 461794	*Peltorhamphus novaezelandiae*
SPRAT — Blue	37 085003	*Spratelloides robustus*
SPRAT — Sandy	37 085005	*Hyperlophus vittatus*
SQUID	00 600000	Order Teuthoidea
SQUID — Arrow	00 600001	*Nototodarus gouldi*
SQUID — Asian	00 620006	*Loligo formosa* and *L. chinensis*
SQUID — Californian	00 620007	*Loligo opalescens*
STARGAZER	37 400000	Uranoscopidae
SWALLOWTAIL	37 258005	*Centroberyx lineatus*
SWEETLIP	37 350904	Hameulidae except *Pomadasys* spp
TAILOR	37 334002	*Pomatomus saltatrix*
TARWHINE	37 353013	*Rhabdosargus sarba*
TENCH	37 165002	*Tinca tinca*
TERAGLIN	37 354020	*Atractoscion aequidens*
THREADFIN	37 383790	*Polydactylus microstoma*
THREADFIN — Blue	37 383004	*Eleutheronema tetradactylum*
THREADFIN — King	37 383005	*Polydactylus sheridani*
TREVALLY — Black	37 438902	*Siganus* spp
TREVALLY — Golden	37 337012	*Gnathanodon speciosus*
TREVALLY — Great	37 337039	*Caranx sexfasciatus*
TREVALLY — Silver	37 337062	*Pseudocaranx dentex*
TROCHUS	00 665001	*Trochus niloticus*
TROUT	37 094900	*Oncorhynchus mykiss* and *Salmo trutta*
TROUT — Coral	37 311905	*Plectropomus* and *Variola* spp
TRUMPETER	37 378900	*Latridopsis* spp
TRUMPETER — Striped	37 378001	*Latris lineata*
TUNA — Bigeye	37 441011	*Thunnus obesus*
TUNA — Longtail	37 441013	*Thunnus tonggol*
TUNA — Mackerel	37 441010	*Euthynnus affinis*
TUNA — Skipjack	37 441003	*Katsuwonus pelamis*
TUNA — Southern Bluefin	37 441004	*Thunnus maccoyii*
TUNA — Yellowfin	37 441002	*Thunnus albacares*
TURBO	00 663003	Turbinidae
TURBOT — Greenland	37 461793	*Reinhardtius hippoglossoides*

TUSK	37 228001	*Dannevigia tusca*
TUSKFISH	37 384902	*Choerodon schoenleinii, C. cephalotes* and *C. venustus*
URCHIN — Sea	00 708001	Echinometridae
VEILFIN	37 269001	*Velifer multiradiatus*
WAREHOU — Blue	37 445005	*Seriolella brama*
WAREHOU — Silver	37 445006	*Seriolella punctata*
WHITEBAIT	37 990002	*Lovettia sealii* and *Galaxias maculatus*
WHITEBAIT — Asian	37 100750	Salangidae
WHITING — Grass	37 385009	*Haletta semifasciata*
WHITING — King George	37 330001	*Sillaginodes punctata*
WHITING — North Sea	37 226794	*Merlangius merlangus*
WHITING — Sand	37 330010	*Sillago ciliata*
WHITING — School	37 330901	*Sillago bassensis, S. flindersi* and *S. robusta*
WHITING — Trumpeter	37 330015	*Sillago maculata*
WHITING — Yellowfin	37 330012	*Sillago schomburgkii*
WRASSE	37 384000	Labridae
WRASSE — Maori	37 384903	*Cheilinus trilobatus* and *C. undulatus*
YABBY	00 704005	*Cherax* spp except *C. quadricarinatus* and *C. tenuimanus*

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