

**CSIRO Marine Laboratories
Report 197**

**Tagging Experiments on
Australian Salmon (*Arripis
trutta*): Recapture Data for
New South Wales Releases,
1939 to 1965, and Victorian
Releases, 1939 to 1964**

C. A. Stanley



CSIRO
AUSTRALIA

1988

National Library of Australia Cataloguing-in-Publication Entry

Stanley, C. A. (Clive A.)

Tagging experiments on Australian salmon (*Arripis trutta*):
recapture data for New South Wales releases, 1939 to 1965,
and Victorian releases, 1939 to 1964.

ISSN 0725-4598

ISBN 0 643 04828 6.

1. Salmon. 2. Fish tagging — Australia.
I. Commonwealth Scientific and Industrial
Research Organisation (Australia). Marine
Laboratories. II. Title. (Series : Report
(Commonwealth Scientific and Industrial
Research Organisation (Australia). Marine
Laboratories) ; no. 197).

639.3'755

Tagging experiments on Australian Salmon (Arripis trutta): Recapture data for New South Wales releases, 1939 to 1965, and Victorian releases, 1939 to 1964

C. A. Stanley

CSIRO Division of Fisheries Research
Marine Laboratories
GPO Box 1538
HOBART Tasmania 7001

CSIRO Marine Laboratories Report No. 197

Abstract

Release and recapture information are given for 274 recaptures from 1196 tagged Australian salmon (Arripis trutta) liberated in New South Wales between 1939 and 1965, and 1188 recaptures from 7186 liberated in Victorian waters between 1939 and 1964. When available, recapture information includes tag type, locality, date, fish length (including similar release data), and whether the return was made by an amateur or professional fisherman.

Introduction

The biology of the Australian salmon in New South Wales and Victorian waters was studied by the CSIRO Division of Fisheries Research between 1939 and 1965. As part of this study, numbers of fish were tagged, especially between 1963 and 1965.

Although use has been made of the resulting information, the data set still provides a valuable record for future analyses. Of the information published, Thomson (1963) and Stanley (1983) have reported on the suitability of the various tag types used, and Stanley (1978) has used the data in discussing the population dynamics of the eastern subspecies. Anon (1968) and Malcolm (1960, 1966a, 1966b) comment briefly on the movements of tagged fish. To make the entire set of data available for future analyses and to provide an historic record, all available information is listed in a common format.

Data Format

Release and recapture localities are plotted in figs 1 to 3 (New South Wales, Victoria and Other States), and experiment numbers relating to individual release locations are listed in Table 1. Recaptures from New South Wales experiments are listed first, followed by Victorian experiments (experiment VIC 020 does not exist).

Up to experiment VIC 015 and NSW 003 a variety of tag types, noted under each experiment, were used. Several Petersen disks from experiments VIC 011 to 015 were returned with only the blank, and not the numbered, disk. These returns are listed separately before experiment VIC 011.

After experiment VIC 015 internal tags only were used, and from experiment VIC 022 external plastic streamers were attached to these (and also probably for experiments VIC 019 to 021). Internal tags with external plastic streamers were also used after experiment NSW 003.

Return rates of the various tag types used are listed in Table 2.

Internal tags were much superior to other types. The return rate of 26.9% for New South Wales Petersen tags is much higher than that recorded elsewhere (Stanley 1983, Thomson 1963). However, of the 121 recaptures, 71 were from two batches returned from the release locality on two dates, 14 September 1948 and 5 October 1948, 115 to 137 days after release. These recaptures were not included in the analyses carried out by Stanley 1983 or Thomson 1963, and were discovered only during a search of tag return correspondence in the course of the preparation of this report. There may have been a valid reason for not previously including these recaptures and they represent a substantial percentage of those returned. However, in respect to return rates of the various tag types they are best regarded as the chance recapture of a large number of tags near the release point before dispersal had occurred. Eliminating them, results in a return rate of 11.1%, which is close to the percentage return rates given by Thomson (1963) and to the adjusted return rates quoted by Stanley (1983).

In Victoria, the east and west subspecies (Arripis trutta marginata and A. t. esper respectively) often coexist in the same school. The only satisfactory method of determining the subspecies identity is by counting the number of gill rakers (Malcolm 1959). For most experiments from VIC 019, representative samples of fish remaining after tagging operations were examined and gill raker counts made. These counts were then used to determine the probable subspecies composition of released tagged fish.

Fish length measurements (cm) are from the snout to the caudal fork. Lengths at release are accurate, the measurements having been made by scientific staff. The accuracy of recapture lengths is variable, some having been made by scientific staff but others by amateurs or professional fishermen.

Lengths-at-release of individual fish are available only for experiments VIC 001 to 015 and NSW 001 to 003. Thereafter length information at release was derived from separate subsamples of fish remaining after tagging operations. In many cases, by inspection of length-frequency graphs, it has been possible to determine the percentage of fish within discrete modes (square parentheses). Otherwise total length ranges are given (parentheses).

Occasionally no records of length composition at release were made.

Column symbols

NSW,SA,Tas,Vic,WA in 'locality' column: the recapture was made in New South Wales, South Australia, Tasmania, Victoria or Western Australia.

* in 'recapture date' column: date is approximate

A or P in 'returned by' column: tag was returned by an amateur or professional fisherman respectively.

Table 1 Index of release localities in (a) New South Wales and (b) Victoria.

| Locality | Experiment numbers |
|------------------|---|
| (a) Black Head | NSW 009 |
| Haycock Beach | NSW 010 |
| Mowwarry | NSW 014 |
| Narooma | NSW 001 |
| Pambula | NSW 002, 003 |
| Pinnacles Beach | NSW 011 |
| Twofold Bay | NSW 004, 005, 006, 008, 013, 015 |
| Wonboyn | NSW 007, 012 |
| (b) Barwon River | VIC 045 |
| Bulmers Jetty | VIC 033, 037, 038 |
| Cape Everard | VIC 040 |
| Cunningham Arm | VIC 031, 032, 036 |
| Fitzroy River | VIC 043 |
| Flannigan Island | VIC 022, 023, 024, 025 |
| Frazer Island | VIC 026, 027, 030, 034 |
| Lakes Entrance | VIC 001-003, 011-019, 021, 041, 046, 047, 051-053 |
| Marlo | VIC 044 |
| North Arm | VIC 035 |
| Oberon Bay | VIC 048, 050 |
| Portland | VIC 042 |
| Rigby Island | VIC 028, 029 |
| Sydenham Inlet | VIC 039 |
| Tidal River | VIC 049 |
| Wingan Inlet | VIC 004-010 |

Table 2 Recovery rates of various tag types

| Tag type | New South Wales | | | Victoria | | |
|--------------|-----------------|-------------------|-----------------------|-----------------|-------------------|-----------------------|
| | Number released | Number recaptured | Percentage recaptured | Number released | Number recaptured | Percentage recaptured |
| Internal | 696 | 153 | 22.0 | 4026 | 1048 | 26.0 |
| Petersen | 450 | 121 | 26.9* | 489 | 28 | 5.7 |
| Strap | 50 | - | - | 2414 | 95 | 3.9 |
| Tape | - | - | - | 257 | 17 | 6.6 |
| Total | 1196 | 274 | 22.9 | 7186 | 1188 | 16.5 |

* or 11.1%, excluding two return batches of 71 tags (see text)

References

- Anon (1968) Australian salmon - research and tagging programmes. Fishing Industry News Service, Perth. Vol. 1, pp 7 -14.
- Malcolm, W.B. (1959) The populations of Australian 'salmon', Arripis trutta (Bloch and Schneider), in Australian waters. Australian Journal of Marine and Freshwater Research **10**, 22-29.
- Malcolm, W.B. (1960) Area of distribution, and movement of the western subspecies of the Australian 'salmon', Arripis trutta esper Whitley. Australian Journal of Marine and Freshwater Research **11**, 282-325.
- Malcolm, W.B. (1966a) Synopsis for F.A.O. Species and Stock Thesaurus of data on Arripis trutta (Bloch and Schneider). In 'Commonwealth - State Fisheries Conference, Southern Pelagic Project Committee, Technical Session Cronulla, 1966'. Vol 3, SPP(T) 66/1/4. (CSIRO: Cronulla, NSW).
- Malcolm, W.B. (1966b) Area of distribution and movements of the eastern subspecies of the Australian 'salmon'. In 'Commonwealth - State Fisheries Conference, Southern Pelagic Project Committee, Technical Session, Cronulla, 1966'. Vol. 3, SPP(T) 66/4/4B. (CSIRO: Cronulla, NSW).
- Stanley, C.A. (1978) Area of distribution, age composition and mortality rates of the Australian salmon population in Tasmania, Victoria and New South Wales. Australian Journal of Marine and Freshwater Research **29**, 417-33.
- Stanley, C.A. (1983) Some effects of handling techniques on returns of tagged Australian salmon, Arripis trutta (Bloch and Schneider). Australian Journal of Marine and Freshwater Research **34**, 845-55.
- Thomson, J.M. (1963) The tagging and marking of marine animals in Australia. International Commission on Northwest Atlantic Fisheries Special Publication No. 4, pp 550-8.

Fig. 1 Release and recapture localities in New South Wales

| Locality | Code Number | Locality | Code Number |
|-------------------|-------------|------------------|-------------|
| Bermagui | 9 | Moruya | 7 |
| Binge Binge Beach | 8 | Morowary | 12 |
| Black Head | 14 | | |
| Boydton | 12 | Narooma | 8 |
| Broulee | 7 | Nelson Bay | 2 |
| | | Newtons Beach | 12 |
| Calle Calle Bay | 13 | Nowra | 4 |
| Crockhaven Heads | 4 | | |
| Cuttagee Beach | 9 | Pambula | 11 |
| | | Pinnacles Beach | 12 |
| Disaster Bay | 13 | Port Stephens | 2 |
| | | | |
| Eden | 12 | Racecourse Beach | 9 |
| | | | |
| Fisheries Creek | 12 | Saltwater Creek | 12 |
| Forster | 1 | Stony River | 13 |
| | | | |
| Haycock Beach | 11 | Tabourie | 6 |
| Huskinson | 4 | Tathra | 11 |
| | | Tollgate Island | 7 |
| Iron Prince Reef | 15 | Twofold Bay | 12 |
| | | | |
| Jane Speers Beach | 12 | Ulladulla | 6 |
| Jervis Bay | 4 | | |
| | | Wapengo Lake | 10 |
| Kiah Beach | 12 | Wollongong | 3 |
| | | Womboyn | 13 |
| Logans Beach | 13 | Wreck Bay | 5 |
| | | | |
| Malua Beach | 7 | | |
| Merimbula | 11 | | |
| Mewtrees Beach | 12 | | |
| Mollymook Beach | 6 | | |

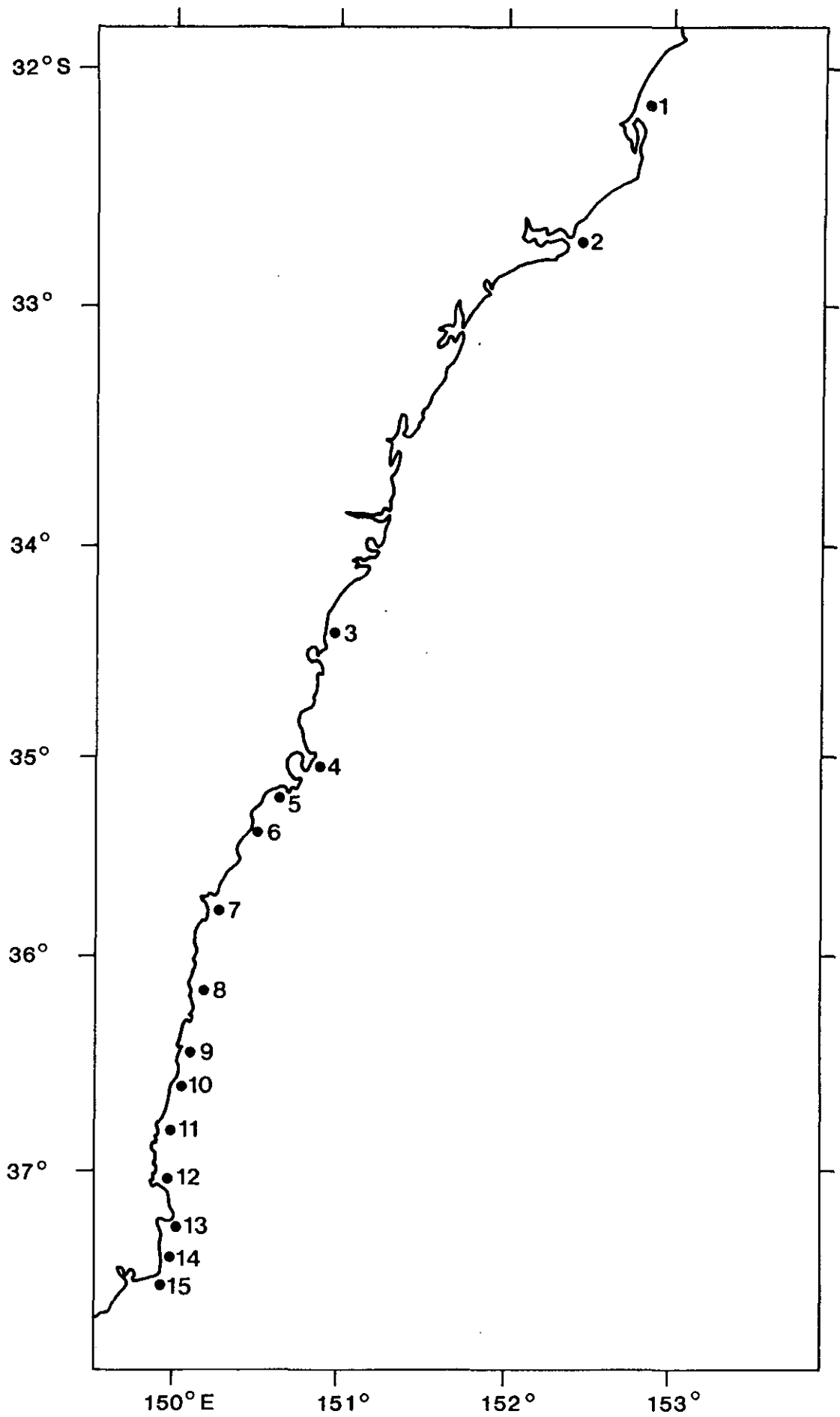


Fig. 2 Release and recapture localities in Victoria

| Locality | Code Number | Locality | Code Number |
|------------------|-------------|---------------------|-------------|
| Bancroft Bay | 15 | Marlo | 17 |
| Barwon River | 2 | McGaurans Beach | 15 |
| Bulmers Jetty | 15 | McLaughans Inlet | 15 |
| | | Melbourne | 3 |
| Cann River | 19 | Metung | 15 |
| Cape Conran | 18 | Mornington | 3 |
| Cape Everard | 20 | | |
| Corringle Beach | 17 | Norman Bay | 7 |
| Cunningham Arm | 15 | North Arm | 15 |
| | | | |
| Derby River | 7 | Oberon Bay | 7 |
| | | Ocean Grange | 14 |
| | | | |
| Fitzroy River | 1 | Paynesville | 15 |
| Flannigan Island | 15 | Pearl Point | 19 |
| Fraser River | 15 | Pelican Island | 15 |
| | | Point Richards | 17 |
| Gabo Island | 23 | Port Albert | 10 |
| Gippsland Lakes | 15 | Portland | 1 |
| Golden Beach | 13 | Port Welshpool | 9 |
| | | | |
| Kalimna | 15 | Reeves Channel | 14 |
| Kent Islands | 11 | Rigby Island | 15 |
| Kilcunda | 5 | | |
| | | | |
| Lake Bunga | 15 | Sealers Cover | 8 |
| Lake King | 15 | Seaspray | 12 |
| Lakes Entrance | 15 | Shallow Inlet | 6 |
| Lake Tyers | 16 | Shoal Inlet | 10 |
| Lake Victoria | 14 | Squeaky Bay | 8 |
| Letts Beach | 15 | Sydenham Inlet | 19 |
| | | | |
| Mallacoota | 22 | Tamboon Inlet | 19 |
| Manns Beach | 10 | Tambo River | 15 |
| | | Tidal River | 7 |
| | | | |
| | | Waratah Bay | 6 |
| | | Waterloo Bay | 8 |
| | | Western Port Bay | 4 |
| | | Wilson's Promontory | 7 |
| | | Wingan Inlet | 21 |

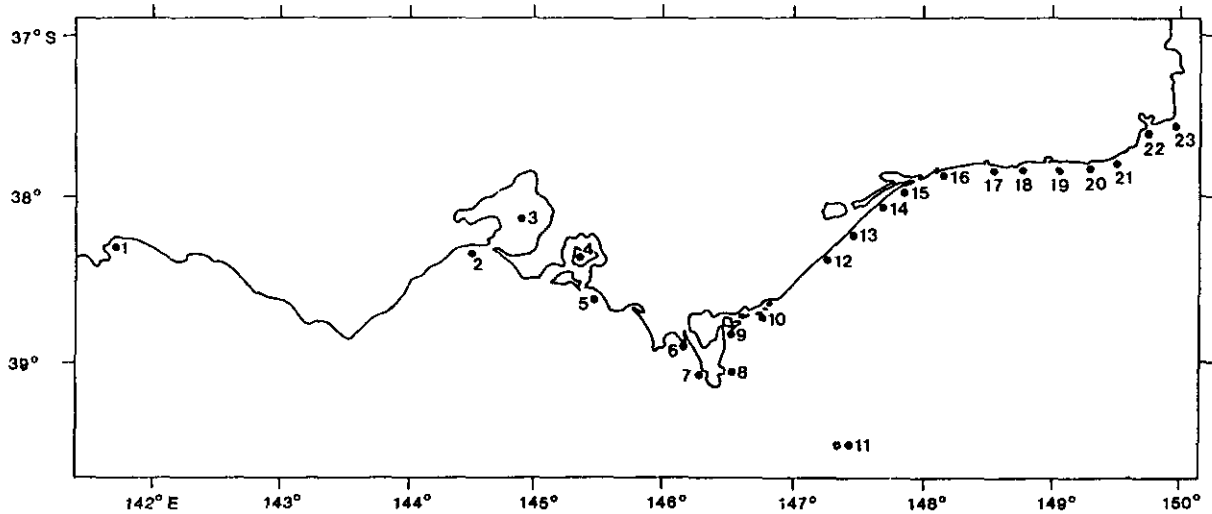
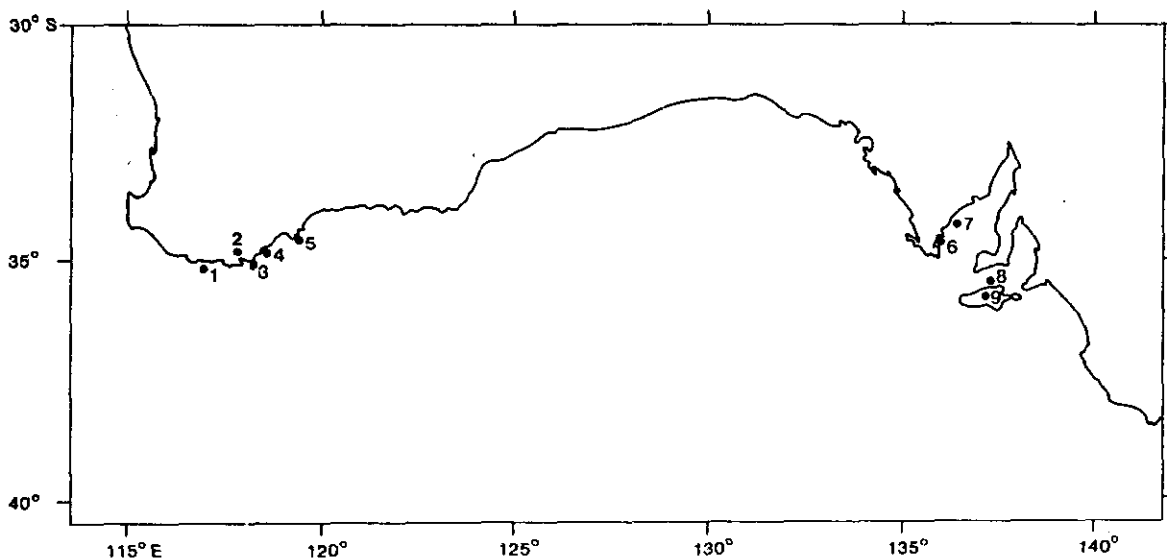


Fig. 3 Recapture localities in South Australia and Western Australia

| Locality | Code Number |
|----------|----------------|
|----------|----------------|

| | |
|-----------------|---|
| Albany | 2 |
| Betty Bay | 3 |
| Bremer Bay | 5 |
| Cape Cassini | 8 |
| Cheyne Beach | 4 |
| Kangaroo Island | 9 |
| Parrys Inlet | 1 |
| Peaceful Bay | 1 |
| Port Lincoln | 6 |
| Port Neill | 7 |



Experiment No. NSW 001

Place of release. Narooma
 Number of fish released 50
 Per cent recaptured: 0

Date of release. 16 October 1939
 Lengths 50-54 cm (13). 55-62 cm (31)
 Tag type: Strap

Experiment No. NSW 002

Place of release Pambula
 Number of fish released 250
 Per cent recaptured: 19.6

Date of release 21 May 1948
 Lengths 39-50 cm (250)
 Tag type: Peterson

| Recapture number | Locality | Date of recapture | Days free | Length (cm) at release | Returned by |
|------------------|---------------------|-------------------|-----------|------------------------|-------------|
| 1 | Merimbula | 26.05.48 | 5 | 45.0 | 45.6 |
| 2 | " " " | 27.05.48 | 6 | 47.0 | 46.7 |
| 3 | " " " | 29.05.48 | 8 | 43.0 | |
| 4 | " " " | " | " | 44.0 | |
| 5 | " " " | " | " | 45.0 | |
| 6-7 | " " " | " | " | 46.0 | |
| 8 | Pambula | 30.05.48 | 9 | 43.0 | |
| 9 | " " | " | " | 45.0 | |
| 10 | Merimbula | 12.06.48 | 22 | 45.0 | 45.2 |
| 11 | " " " | " | " | 47.0 | 46.7 |
| 12 | Pambula | 01.08.48 | 72 | 48.0 | |
| 13 | " " | 16.08.48 | 87 | 46.0 | |
| 14 | " " | " | " | 47.0 | |
| 15 | " " | " | " | 48.0 | |
| 16 | " " | 31.08.48 | 102 | 42.0 | 47.0 |
| 17 | " " | " | " | 45.0 | 44.0 |
| 18 | " " | 08.09.48 | 110 | 43.0 | 43.0 |
| 19 | Merimbula | 11.09.48 | 113 | 47.0 | 54.6 |
| 20-21 | Pambula | 14.09.48 | 116 | 43.0 | 43.0 |
| 22 | " " | " | " | 43.0 | 45.5 |
| 23 | " " | " | " | 43.0 | 47.5 |
| 24-31 | " " | " | " | 44.0 | 44.0 |
| 32-34 | " " | " | " | 45.0 | 45.0 |
| 35-37 | " " | " | " | 46.0 | 46.0 |
| 38 | " " | " | " | 46.0 | 47.5 |
| 39 | " " | " | " | 46.0 | 48.0 |
| 40 | " " | " | " | 47.0 | |
| 41 | " " | " | " | 47.0 | 47.0 |
| 42 | " " | " | " | 47.0 | 50.0 |
| 43 | " " | " | " | 49.0 | |
| 44 | " " | 05.10.48 | 137 | 45.0 | 44.0 |
| 45 | " " | " | " | 46.0 | 46.0 |
| 46 | Wapengo Lake | 30.10.48 | 162 | 46.0 | 46.0 |
| 47 | Vic, Lakes Entrance | 29.11.48 | 192 | 45.0 | |
| 48 | Bermagui | 04.01.49 | 228 | 45.0 | 53.0 |
| 49 | New South Wales * | 27.01.49 | 251 | 43.0 | |

Experiment No. NSW 003

Place of release. Pambula
 Number of fish released 200
 Per cent recaptured: 36.0

Date of release: 22 May 1948
 Lengths 39-49 cm (200)
 Tag type: Peterson

| Recapture number | Locality | Date of recapture | Days free | Length (cm) at release | Returned by |
|------------------|--------------------|-------------------|-----------|------------------------|-------------|
| 1 | Merimbula | 26.05.48 | 4 | 43.0 | 42.5 |
| 2 | " " " | " | " | 46.0 | 46.7 |
| 3 | " " " | 29.05.48 | 7 | 42.0 | |
| 4 | " " " | " | " | 43.0 | |
| 5 | " " " | " | " | 44.0 | |
| 6-10 | " " " | " | " | 45.0 | |
| 11 | " " " | 12.06.48 | 21 | 42.0 | 41.7 |
| 12 | " " " | " | " | 46.0 | 44.6 |
| 13 | " " " | " | " | 46.0 | 45.6 |
| 14 | " " " | " | " | 48.0 | 47.4 |
| 15 | New South Wales | 05.07.48 | 44 | 46.0 | |
| 16 | Pambula | 10.08.48 | 80 | 43.0 | 43.2 |
| 17 | " " | 16.08.48 | 86 | 46.0 | |
| 18 | " " | " | " | 47.0 | |
| 19 | " " | 31.08.48 | 101 | 45.0 | 46.0 |
| 20-21 | " " | " | " | 47.0 | 47.0 |
| 22 | Moruya | * 06.09.48 | 107 | 46.0 | 44.5 |
| 23-24 | Pambula | 14.09.48 | 115 | 41.0 | 41.0 |
| 25-27 | " " | " | " | 43.0 | 43.0 |
| 28-35 | " " | " | " | 44.0 | 44.0 |
| 36 | " " | " | " | 44.0 | 45.0 |
| 37 | " " | " | " | 44.0 | 47.5 |
| 38-46 | " " | " | " | 45.0 | 45.0 |
| 47-50 | " " | " | " | 46.0 | 46.0 |
| 51 | " " | " | " | 47.0 | |
| 52-58 | " " | " | " | 47.0 | 47.0 |
| 59 | " " | " | " | 48.0 | 48.0 |
| 60 | " " | " | " | 49.0 | 49.0 |
| 61 | New South Wales | * 20.09.48 | 121 | 46.0 | 45.5 |
| 62 | Wapengo Lake | 25.09.48 | 126 | 46.0 | |
| 63 | Pambula | 05.10.48 | 136 | 43.0 | 44.0 |
| 64 | " " | " | " | 44.0 | 44.0 |
| 65 | " " | " | " | 44.0 | 45.0 |
| 66 | " " | " | " | 45.0 | 45.0 |
| 67 | " " | " | " | 45.0 | 46.0 |
| 68 | " " | " | " | 46.0 | 46.0 |
| 69 | " " | " | " | 47.0 | 48.0 |
| 70 | Merimbula | 08.12.48 | 200 | 46.0 | 46.0 |
| 71 | Pambula | 28.12.48 | 220 | 48.0 | 53.3 |
| 72 | Vic, Tamboon Inlet | 09.02.49 | 263 | 46.0 | 53.3 |

Experiment No. NSW 004

Place of release: Twofold Bay
 Number of fish released 50
 Per cent recaptured: 50.0

Date of release: 11 February 1963
 Lengths: (45-52 cm)

| Recapture number | Locality | | Date of recapture | Days free | Length (cm) at release | Length (cm) at recapture | Returned by |
|------------------|---------------------|---|-------------------|-----------|------------------------|--------------------------|-------------|
| 1-3 | Eden | * | 17.02.63 | 6 | | | P |
| 4 | Wonboyn | | 18.02.63 | 7 | | | P |
| 5 | Disaster Bay | | 23.02.63 | 12 | | | P |
| 6-7 | Newtons Beach | | 24.02.63 | 13 | | | P |
| 8-13 | Vic, Marlo | | 05.03.63 | 22 | | 43.8 | P |
| 14-15 | Calle Calle Bay | | 11.03.63 | 28 | | | P |
| 16 | Vic, Lakes Entrance | | 15.03.63 | 32 | | | P |
| 17 | " " (26 kmE) | | 17.03.63 | 34 | | | P |
| 18 | " " (48 kmE) | * | 21.03.63 | 38 | | 55.9 | P |
| 19 | Vic, Sealers Cove | | 17.04.63 | 65 | | 45.7 | A? |
| 20 | Vic, Lakes Entrance | | 23.04.63 | 71 | | | P |
| 21 | Eden | | 25.05.63 | 103 | | | P |
| 22 | Disaster Bay | | " " | " " | | 52.1 | P |
| 23 | Vic, Tamboon Inlet | | 14.06.63 | 123 | | | P |
| 24 | Vic, Mallacoota | | 22.08.63 | 192 | | 53.3 | P? |
| 25 | Broulee | | 01.12.63 | 293 | | | P |

Experiment No. NSW 005

Place of release: Twofold Bay
 Number of fish released: 50
 Per cent recaptured: 28.0

Date of release: 14 February 1963
 Lengths: (41-51 cm)

| Recapture number | Locality | | Date of recapture | Days free | Length (cm) at release | Length (cm) at recapture | Returned by |
|------------------|----------------------------------|---|-------------------|-----------|------------------------|--------------------------|-------------|
| 1 | Disaster Bay | | 17.02.63 | 3 | | | P |
| 2 | " " | | 23.02.63 | 9 | | | P |
| 3 | Eden | * | 25.02.63 | 11 | | | P |
| 4-5 | Vic, Marlo | | 05.03.63 | 19 | | 43.8 | P |
| 6-7 | Calle Calle Bay | | 11.03.63 | 25 | | | P |
| 8-9 | Vic, Lakes Entrance (26 km E) | | 17.03.63 | 31 | | | P |
| 10 | Vic, Lakes Entrance (48 km E) | * | 21.03.63 | 35 | | | P |
| 11 | Vic, Lakes Entrance | | 23.04.63 | 68 | | | P |
| 12 | Eden | * | 22.06.63 | 128 | | | P |
| 13 | Logans Beach | | 19.11.63 | 278 | | | P |
| 14 | Broulee | | 01.12.63 | 290 | | 47.0 | P |

Experiment No. NSW 006

Place of release: Twofold Bay
 Number of fish released: 100
 Per cent recaptured: 26.0

Date of release: 23 February 1963
 Lengths: [33-40 cm (10%), 44-53 cm (90%)]

| Recapture number | Locality | Date of recapture | Days free | Length (cm) at release | Returned by |
|------------------|---------------------|-------------------|-----------|------------------------|-------------|
| 1 | Wonboyn | 24.02.63 | 1 | | P |
| 2 | Newtons Beach | " | " | | P |
| 3 | Mowwarry | 26.02.63 | 3 | 53.3 | A |
| 4 | Vic, Mallacoota | 01.03.63 | 6 | 55.2 | A |
| 5-10 | Vic, Marlo | 05.03.63 | 10 | 43.8 | P |
| 11-16 | Calle Calle Bay | 11.03.63 | 16 | | P |
| 17-18 | Vic, Lakes Entrance | 15.03.63 | 20 | | P |
| 19-20 | " " " | 23.04.63 | 59 | | P |
| 21 | " " " | " | " | 54.6 | P |
| 22 | Black Head | 01.06.63 | 98 | | P |
| 23 | Saltwater Creek | 31.07.63 | 158 | | P |
| 24 | Wonboyn | 01.08.63 | 159 | | P |
| 25 | Merimbula | 30.11.63 | 280 | 49.0 | P |
| 26 | Eden | 22.04.64 | 424 | | P |

Experiment No. NSW 007

Place of release: Wonboyn
 Number of fish released: 50
 Per cent recaptured: 14.0

Date of release: 18 October 1963
 Lengths: [43-52 cm (99.5%), 57 cm (0.5%)]

| Recapture number | Locality | Date of recapture | Days free | Length (cm) at release | Returned by |
|------------------|-----------|-------------------|-----------|------------------------|-------------|
| 1 | Wonboyn | 18.10.63 | 0 | | P |
| 2-3 | Merimbula | 30.11.63 | 43 | | P |
| 4 | " " | " | " | 46.9 | P |
| 5 | " " | " | " | 49.0 | P |
| 6 | Broulee | 01.12.63 | 44 | 48.0 | P |
| 7 | Eden | 21.04.64 | 186 | 46.0 | P |

Experiment No. NSW 008

Place of release: Twofold Bay
 Number of fish released: 47
 Per cent recaptured: 4.3

Date of release: 27 January 1964

| Recapture number | Locality | Date of recapture | Days free | Length (cm) at release | Returned by |
|------------------|---------------------|-------------------|-----------|------------------------|-------------|
| 1 | Vic, Lakes Entrance | 25.04.64 | 90 | | P |
| 2 | Nowra | * 19.08.64 | 206 | | P |

Experiment No. NSW 009

Place of release: Black Head
 Number of fish released: 99
 Per cent recaptured: 27.3

Date of release: 27 May 1964
 Lengths: (43-52 cm)

| Recapture number | Locality | Date of recapture | Days free | Length (cm) at release | Returned by |
|------------------|---------------------|-------------------|-----------|------------------------|-------------|
| 1-2 | Wonboyn | * 15.06.64 | 19 | | P |
| 3 | Vic, Lakes Entrance | 15.06.64 | " | | P |
| 4 | Stony River | 17.06.64 | 21 | 45.0 | P |
| 5 | Eden | * 20.06.64 | 24 | | P |
| 6 | Iron Prince Reef | 20.06.64 | " | | P |
| 7-9 | Vic, Lakes Entrance | 26.06.64 | 30 | | P |
| 10 | Eden | * 28.06.64 | 32 | | P |
| 11-12 | Vic, Lakes Entrance | 10.07.64 | 44 | | P |
| 13 | " " " | * 12.07.64 | 46 | 48.3 | A |
| 14 | Disaster Bay | 21.07.64 | 55 | 61.0 | P |
| 15 | Pinnacles Beach | 31.07.64 | 65 | | P |
| 16 | Haycock Beach | 01.08.64 | 66 | | P |
| 17 | Wonboyn | 11.08.64 | 76 | 58.4 | P |
| 18 | Moruya | 08.09.64 | 165 | | P |
| 19 | Nowra | 26.09.64 | 183 | | P |
| 20 | Wreck Bay | 01.12.64 | 188 | 57.2 | P |
| 21 | Pambula | 15.12.64 | 202 | | P |
| 22 | Eden | 01.01.65 | 219 | | P |
| 23-24 | Logans Beach | 14.01.65 | 232 | | P |
| 25 | Narooma | 20.04.65 | 328 | 52.7 | A |
| 26 | Vic, Lakes Entrance | * 02.05.65 | 340 | | P |
| 27 | Port Stephens | 22.09.66 | 848 | 64.1 | A |

Experiment No. NSW 010

Place of release: Haycock Beach Date of release: 15 July 1964
 Number of fish released: 50 Lengths: (44-53 cm)
 Per cent recaptured: 24.0

| Recapture number | Locality | Date of recapture | Days free | Length (cm) at release | Length (cm) at recapture | Returned by |
|------------------|-----------------|-------------------|-----------|------------------------|--------------------------|-------------|
| 1-3 | Haycock Beach | 01.08.64 | 17 | | | P |
| 4-7 | Pinnacles Beach | 04.08.64 | 20 | | | P |
| 8-9 | Moruya | * 10.08.64 | 26 | | | P |
| 10 | Broulee | 14.09.64 | 122 | | 48.3 | P |
| 11 | " | 30.09.64 | 138 | | 49.5 | P |
| 12 | New South Wales | 20.06.66 | 705 | | | P |

Experiment No. NSW 011

Place of release: Pinnacles Beach Date of release: 4 August 1964
 Number of fish released: 100 Lengths: (44-53 cm)
 Per cent recaptured: 13.0

| Recapture number | Locality | Date of recapture | Days free | Length (cm) at release | Length (cm) at recapture | Returned by |
|------------------|-------------------|-------------------|-----------|------------------------|--------------------------|-------------|
| 1 | Boydton | 27.08.64 | 23 | | | P |
| 2 | Tathra | 19.09.64 | 46 | | 48.3 | A? |
| 3 | " | 26.10.64 | 83 | | 48.3 | A |
| 4 | Moruya | 12.11.64 | 100 | | | P |
| 5 | Nowra | 26.11.64 | 114 | | | P |
| 6-7 | Broulee | 30.11.64 | 118 | | 49.5 | P |
| 8 | Binge Binge Beach | * 09.12.64 | 127 | | 48.3 | P |
| 9 | " " " | " " | " " | | 50.8 | P |
| 10 | Malu Beach | * 11.01.65 | 160 | | 41.3 | A |
| 11 | Eden | 16.01.65 | 165 | | | P |
| 12 | Tabourie Beach | 04.04.65 | 243 | | 49.5 | P |
| 13 | Nowra | * 26.05.65 | 295 | | | P |

Experiment No. NSW 012

Place of release: Wonboyn
 Number of fish released: 100
 Per cent recaptured: 18.0

Date of release: 22 September 1964
 Lengths: [41-54 cm (90%), 57-61 cm (10%)]

| Recapture number | Locality | Date of recapture | Days free | Length (cm) at release | Returned by |
|------------------|---------------------|-------------------|-----------|------------------------|-------------|
| 1-2 | Wonboyn | 26.10.64 | 34 | | P |
| 3 | Vic, Marlo | 27.11.64 | 66 | 49.5 | A |
| 4 | Binge Binge Beach | * 09.12.64 | 78 | 50.2 | P |
| 5 | Pambula | 15.12.64 | 84 | | P |
| 6 | Wonboyn | 19.12.64 | 88 | | P |
| 7 | Eden | 01.01.65 | 101 | | P |
| 8 | " | 10.01.65 | 110 | | P |
| 9 | Vic, Lakes Entrance | 18.01.65 | 118 | | P |
| 10 | " " " (18 km E) | 08.02.65 | 139 | | P |
| 11 | Eden | 10.02.65 | 141 | | P |
| 12 | Wonboyn | 26.02.65 | 157 | | P |
| 13 | Tollgate Island | 18.03.65 | 177 | 58.4 | P |
| 14 | Racecourse Beach | * 31.03.65 | 190 | 55.9 | P |
| 15 | Moruya | 01.04.65 | 191 | | P |
| 16 | Saltwater Creek | 27.05.65 | 247 | | P |
| 17 | New South Wales | 20.06.66 | 636 | | P |
| 18 | " " " | 31.01.67 | 861 | | P |

Experiment No. NSW 013

Place of release: Twofold Bay
 Number of fish released: 4
 Per cent recaptured: 25.0

Date of release: 12 December 1964

| Recapture number | Locality | Date of recapture | Days free | Length (cm) at release | Returned by |
|------------------|---------------------|-------------------|-----------|------------------------|-------------|
| 1 | Vic, Lakes Entrance | * 26.02.65 | 76 | 40.6 | P |

Experiment No. **NSW 014**

Place of release: Mowwarry
 Number of fish released: 1
 Per cent recaptured: 100.0

Date of release: 14 December 1964

| Recapture number | Locality | Date of recapture | Days free | Length (cm) at release | Length (cm) at recapture | Returned by |
|------------------|----------|-------------------|-----------|------------------------|--------------------------|-------------|
| 1 | Eden | * 28.05.65 | 165 | | | P |

Experiment No. **NSW 015**

Place of release: Twofold Bay
 Number of fish released: 45
 Per cent recaptured: 15.6

Date of release: 4 January 1965

| Recapture number | Locality | Date of recapture | Days free | Length (cm) at release | Length (cm) at recapture | Returned by |
|------------------|-----------------|-------------------|-----------|------------------------|--------------------------|-------------|
| 1-3 | Saltwater Creek | 10.02.65 | 37 | | | P |
| 4 | Wonboyn | 17.02.65 | 44 | | | P |
| 5 | Eden | * 15.05.65 | 131 | | | P |
| 6 | " | * 28.05.65 | 144 | | | P |
| 7 | Moruya | 25.09.65 | 264 | | | P |

Experiment No. **VIC 001**

Place of release: Lakes Entrance
 Number of fish released: 55
 Per cent recaptured: 7.3

Date of release: 4 December 1939
 Lengths: 24-31 cm (49); 32-35 cm (6)
 Tag type: Strap

| Recapture number | Locality | Date of recapture | Days free | Length (cm) at release | Length (cm) at recapture | Returned by |
|------------------|----------------|-------------------|-----------|------------------------|--------------------------|-------------|
| 1 | Lakes Entrance | 18.12.39 | 14 | 27.0 | 28.5 | |
| 2 | " " | 12.01.40 | 39 | 24.0 | 30.0 | |
| 3 | " " | " " | " " | 26.0 | 30.0 | |
| 4 | " " | 22.04.40 | 140 | 28.0 | 35.0 | |

Experiment No. VIC 002

Place of release: Lakes Entrance Date of release: 6 December 1939
 Number of fish released: 66 Lengths: 25-36 cm (46); 38-45 cm (20)
 Per cent recaptured: 10.6 Tag type: Strap

| Recapture number | Locality | Date of recapture | Days free | Length (cm) at release | Returned by |
|------------------|----------------|-------------------|-----------|------------------------|-------------|
| 1 | Lakes Entrance | 10.12.39 | 4 | 25.5 | 29.0 |
| 2 | " " | 24.12.39 | 18 | 27.0 | 29.2 |
| 3 | " " | 25.12.39 | 19 | 27.0 | 31.7 |
| 4 | " " | " | " | 31.0 | 31.7 |
| 5 | " " | " | " | 41.5 | 38.1 |
| 6 | " " | 28.12.39 | 22 | 28.5 | 31.7 |
| 7 | " " | 30.12.39 | 24 | 27.5 | 28.3 |

Experiment No. VIC 003

Place of release: Lakes Entrance Date of release: 7 December 1939
 Number of fish released: 105 Lengths: 24-33 cm (80); 39-47 cm (25)
 Per cent recaptured: 9.5 Tag type: Strap

| Recapture number | Locality | Date of recapture | Days free | Length (cm) at release | Returned by |
|------------------|----------------|-------------------|-----------|------------------------|-------------|
| 1 | Lakes Entrance | 26.12.39 | 19 | 26.5 | 27.3 |
| 2 | " " | 27.12.39 | 20 | 28.0 | 29.8 |
| 3 | " " | 28.12.39 | 21 | 28.0 | 29.8 |
| 4 | " " | " | " | 28.0 | 29.2 |
| 5 | " " | 29.12.39 | 22 | 27.0 | 29.8 |
| 6 | " " | 09.01.40 | 33 | 41.0 | 37.5 |
| 7 | " " | 12.01.40 | 36 | 26.0 | |
| 8 | " " | 15.01.40 | 39 | 27.0 | 28.9 |
| 9 | " " | 26.01.40 | 50 | 27.0 | 29.8 |
| 10 | " " | 30.01.40 | 54 | 25.5 | 27.3 |

Experiment No. VIC 004

Place of release: Wingan Inlet
 Number of fish released: 139
 Per cent recaptured: 7.9

Date of release: 14 September 1942
 Lengths: 38-40 cm (3); 43-54 cm (137)
 Tag type: Strap

| Recapture number | Locality | Date of recapture | Days free | Length (cm) at release | Length (cm) at recapture | Returned by |
|------------------|----------------|-------------------|-----------|------------------------|--------------------------|-------------|
| 1 | Lakes Entrance | * 30.09.42 | 16 | 49.0 | | |
| 2 | " " | " | " | 51.0 | | |
| 3 | " " | 30.09.42 | " | 50.0 | | |
| 4 | " " | 13.10.42 | 29 | 48.0 | | P |
| 5 | Wingan Inlet | " | " | 53.0 | | P |
| 6 | Lake King | 25.10.42 | 41 | 43.0 | 43.0 | |
| 7 | Marlo | 26.10.42 | 42 | 50.0 | 50.0 | |
| 8 | Mallacoota | 28.10.42 | 44 | 45.0 | | |
| 9 | Metung | 01.11.42 | 48 | 45.0 | | |
| 10 | Seaspray | 07.11.42 | 54 | 44.0 | | A |
| 11 | Metung | 16.11.42 | 63 | 46.0 | | P |

Experiment No. VIC 005

Place of release: Wingan Inlet
 Number of fish released: 555
 Per cent recaptured: 3.1

Date of release: 15 September 1942
 Lengths: 37-54 cm (555)
 Tag type: Strap

| Recapture number | Locality | Date of recapture | Days free | Length (cm) at release | Length (cm) at recapture | Returned by |
|------------------|----------------------|-------------------|-----------|------------------------|--------------------------|-------------|
| 1 | Wingan Inlet | 13.10.42 | 28 | 52.0 | | P |
| 2 | Bancroft Bay | 18.10.42 | 33 | 47.0 | | |
| 3 | " " | 30.10.42 | 45 | 44.0 | | |
| 4 | Wingan Inlet | * 31.10.42 | 46 | 49.0 | | P |
| 5 | Metung | 01.11.42 | 47 | 43.0 | | |
| 6 | " | 15.11.42 | 61 | 52.0 | 57.0 | |
| 7 | NSW, Eden cannery | " | " | 48.0 | | P |
| 8 | Tambo River | " | " | 52.0 | 55.0 | |
| 9 | Metung | 16.11.42 | 62 | 43.0 | 50.0 | |
| 10 | " | " | " | 43.0 | | |
| 11 | NSW, Narooma Cannery | 29.11.42 | 75 | 46.0 | | P |
| 12 | " " " | " | " | 48.0 | | P |
| 13 | Port Albert | * 30.11.42 | 76 | 40.5 | | |
| 14 | " " | " | " | 45.6 | | |
| 15 | Seaspray | 03.04.43 | 200 | 45.0 | | |
| 16 | " | " | " | 50.0 | | |
| 17 | Lakes Entrance | 07.08.47 | 1787 | 46.0 | | |

Experiment No. VIC 006

Place of release: Wingan Inlet
 Number of fish released: 64
 Per cent recaptured: 3.1

Date of release: 17 September 1942
 Lengths: 40 - 55 cm (64)
 Tag type: Strap

| Recapture number | Locality | Date of recapture | Days free | Length (cm) at release | Length (cm) at recapture | Returned by |
|------------------|----------|-------------------|-----------|------------------------|--------------------------|-------------|
| 1 | Metung | 16.11.42 | 60 | 40.0 | | P |
| 2 | " | " | " | 48.0 | | P |

Experiment No. VIC 007

Place of release: Wingan Inlet
 Number of fish released: 320
 Per cent recaptured: 3.4

Date of release: 19 September 1942
 Lengths: 34-38 cm (3); 40-51 cm (317)
 Tag type: Strap

| Recapture number | Locality | Date of recapture | Days free | Length (cm) at release | Length (cm) at recapture | Returned by |
|------------------|----------------|-------------------|-----------|------------------------|--------------------------|-------------|
| 1 | Wingan Inlet | * 31.10.42 | 42 | 45.0 | | P |
| 2 | " " | " | " | 49.0 | | P |
| 3 | " " | " | " | 50.0 | | P |
| 4 | Lakes Entrance | 01.11.42 | 43 | 50.0 | | P |
| 5 | Metung | 15.11.42 | 57 | 47.0 | 51.5 | |
| 6 | " | " | " | 48.0 | 55.0 | |
| 7 | Seaspray | " | " | 46.0 | | A |
| 8 | Metung | 16.11.42 | 58 | | | P |
| 9 | " | " | " | 45.0 | | P |
| 10-11 | " | " | " | 47.0 | | P |

Experiment No. VIC 008

Place of release: Wingan Inlet
 Number of fish released: 445
 Per cent recaptured: 1.8

Date of release: 20 September 1942
 Lengths: 41-54 cm (445)
 Tag type: Strap

| Recapture number | Locality | | Date of recapture | Days free | Length (cm) at release | at recapture | Returned by |
|------------------|----------------|---|-------------------|-----------|------------------------|--------------|-------------|
| 1 | Lakes Entrance | * | 30.09.42 | 10 | 45.0 | | |
| 2 | Metung | | 13.10.42 | 23 | 46.0 | P | |
| 3 | Bancroft Bay | | 18.10.42 | 28 | 49.0 | | |
| 4 | Port Albert | | 27.10.42 | 37 | 48.0 | | |
| 5 | Metung | | 01.11.42 | 42 | 45.0 | | |
| 6 | " | | " | " | 46.0 | | |
| 7 | Lakes Entrance | | 03.11.42 | 44 | 47.0 | P | |
| 8 | Wingan Inlet | | 25.11.42 | 66 | 50.0 | P | |

Experiment No. VIC 009

Place of release: Wingan Inlet
 Number of fish released: 241
 Per cent recaptured: 3.7

Date of release: 21 September 1942
 Lengths: 42-53 cm (241)
 Tag type: Strap

| Recapture number | Locality | | Date of recapture | Days free | Length (cm) at release | at recapture | Returned by |
|------------------|----------------|---|-------------------|-----------|------------------------|--------------|-------------|
| 1 | Lakes Entrance | | 13.10.42 | 22 | 49.0 | | |
| 2 | " " | | 14.10.42 | 23 | 48.0 | | P |
| 3 | Port Albert | | 27.10.42 | 36 | 43.0 | | P |
| 4 | Wingan Inlet | * | 31.10.42 | 40 | 46.0 | | P |
| 5 | " " | | " | " | 47.0 | | P |
| 6 | " " | | " | " | 53.0 | | P |
| 7 | Metung | | 16.11.42 | 56 | | | P |
| 8 | " | | " | " | 47.0 | | P |
| 9 | Port Albert | * | 30.11.42 | 70 | 48.0 | | |

Experiment No. VIC 010

Place of release: Wingan Inlet
 Number of fish released: 179
 Per cent recaptured: 5.0

Date of release: 22 September 1942
 Lengths: 37-39 cm (5); 40-56 cm (174)
 Tag type: Strap

| Recapture number | Locality | Date of recapture | Days free | Length (cm) at release | Length (cm) at recapture | Returned by |
|------------------|----------------|-------------------|-----------|------------------------|--------------------------|-------------|
| 1 | Marlo | 03.10.42 | 11 | 46.0 | | |
| 2 | Lake Victoria | 05.10.42 | 13 | 42.0 | | |
| 3 | Bancroft Bay | 18.10.42 | 26 | 44.0 | | |
| 4 | NSW, Pambula | 27.10.42 | 35 | 50.0 | | |
| 5 | Wingan Inlet | * 31.10.42 | 39 | 46.0 | | P |
| 6 | Metung | 01.11.42 | 40 | 47.0 | | |
| 7 | Sydenham Inlet | 02.11.42 | 41 | 48.0 | | |
| 8 | Metung | 16.11.42 | 55 | 45.0 | 52.0 | |
| 9 | Lakes Entrance | 17.11.42 | 56 | 49.0 | | P |

Experiment No. VIC 011-015

Place of release:
 Number of fish released:
 Per cent recaptured:

Date of release:
 Tag type: Petersen Disc (Blank Disc only)

| Recapture number | Locality | Date of recapture | Days free | Length (cm) at release | Length (cm) at recapture | Returned by |
|------------------|----------------|-------------------|-----------|------------------------|--------------------------|-------------|
| 1 | Lakes Entrance | * 01.02.48 | 13-20 | | | |
| 2 | Marlo | 22.02.48 | 34-41 | | 40.6 | |
| 3 | " | " | " | | 45.7 | |
| 4 | " | 29.02.48 | 41-48 | | | |
| 5 | " | 06.03.48 | 47-54 | | 43.2 | |
| 6 | " | 17.03.48 | 58-65 | | 48.3 | |
| 7 | Lakes Entrance | 18.03.48 | 59-66 | | | P |
| 8 | Marlo | 24.03.48 | 65-72 | | 40.6 | |
| 9 | " | 27.03.48 | 68-75 | | 48.3 | |

Experiment No. VIC 011

Place of release: Lakes Entrance Date of release: 12 January 1948
 Number of fish released: 214 Lengths: 36-47 cm (214)
 Per cent recaptured: 2.3 Tag type: # Petersen (97); Tape (27)
 † Strap (90)

| Recapture number | Locality | Date of recapture | Days free | Length (cm) at release | at recapture | Returned by |
|------------------|-------------------|-------------------|-----------|------------------------|--------------|-------------|
| # 1 | Metung | 19.01.48 | 8 | 45.0 | | |
| # 2 | Lakes Entrance | 20.01.48 | 9 | 42.0 | | |
| # 3 | " " | " | " | 43.0 | | |
| # 4 | " " | * 28.02.48 | 48 | 41.0 | | |
| † 5 | NSW, Disaster Bay | * 23.08.48 | 225 | 39.0 | | P |

Experiment No. VIC 012

Place of release: Lakes Entrance Date of release: 13 January 1948
 Number of fish released: 53 Lengths: 34-37 cm (4); 39-47 cm (49)
 Per cent recaptured: 1.9 Tag type: Strap

| Recapture number | Locality | Date of recapture | Days free | Length (cm) at release | at recapture | Returned by |
|------------------|----------------|-------------------|-----------|------------------------|--------------|-------------|
| 1 | Lakes Entrance | * 31.05.48 | 140 | 44.0 | | P |

Experiment No. VIC 013

Place of release: Lakes Entrance Date of release: 14 January 1948
 Number of fish released: 233 Lengths: 29 cm (1); 36-47 cm (232)
 Per cent recaptured: 2.6 Tag type: Petersen

| Recapture number | Locality | Date of recapture | Days free | Length (cm) at release | at recapture | Returned by |
|------------------|----------------|-------------------|-----------|------------------------|--------------|-------------|
| 1 | Lakes Entrance | 26.01.48 | 13 | 43.0 | | |
| 2 | " " " " " | 30.01.48 | 17 | 43.0 | | |
| 3 | " " " " " | " | " | 46.0 | | A? |
| 4 | " " " " " | 03.02.48 | 21 | 45.0 | | A |
| 5 | Seaspray | 08.02.48 | 26 | 43.0 | | |
| 6 | " " | 09.02.48 | 27 | 44.0 | | |

Experiment No. VIC 014

Place of release: Lakes Entrance
 Number of fish released: 329
 Per cent recaptured: 5.8

Date of release: 18 January 1988
 Lengths: 26-30 cm (6), 35-47 cm (44)
 Tag type: # Peterson (111);
 † Strap (47); Tape (171)

| Recapture number | Locality | | Date of recapture | Days free | Length (cm) at release | Length (cm) at recapture | Returned by |
|------------------|-------------------|---|-------------------|-----------|------------------------|--------------------------|-------------|
| 1 | Lakes Entrance | * | 22.01.48 | 5 | 40.0 | | |
| 2 | " " | | " | " | 42.0 | | |
| 3 | " " (19 km W) | | 26.01.48 | 9 | 42.0 | | |
| † 4 | " " | | 27.01.48 | 10 | 41.0 | | |
| 5 | " " | | 30.01.48 | 13 | 43.0 | | |
| # 6 | " " | | " | " | 43.0 | | |
| # 7 | " " | | 01.02.48 | 15 | 41.0 | | |
| 8 | " " (29 km W) | | 19.02.48 | 33 | 42.0 | | |
| # 9 | " " | | 22.02.48 | 36 | 40.0 | | |
| # 10 | " " | | " | " | 45.0 | | A |
| 11 | Metung | | 01.03.48 | 44 | 39.0 | | |
| 12 | Marlo | | 26.03.48 | 69 | 40.0 | 45.7 | |
| 13 | " | | " | " | 44.0 | 45.7 | |
| 14 | NSW, Huskisson | | 28.07.48 | 193 | | | |
| 15 | NSW, Disaster Bay | * | 23.08.48 | 219 | 40.0 | | P |
| 16 | Gabo | | 30.08.48 | 226 | 47.0 | 46.4 | P |
| 17 | Lakes Entrance | | 19.09.48 | 246 | 39.0 | 45.7 | A |
| 18 | Waterloo Bay | | 26.10.48 | 283 | 41.0 | 45.1 | |
| 19 | Marlo | | 23.12.48 | 341 | 42.0 | | |

Experiment No. VIC 015

Place of release: Lakes Entrance
 Number of fish released: 162
 Per cent recaptured: 7.4

Date of release: 19 January 1948
 Lengths: 37-46cm? (lengths at release lost)
 Tag type: # Peterson (48); † Strap (55);
 Tape (59)

| Recapture number | Locality | Date of recapture | Days free | Length (cm) at release | Length (cm) at recapture | Returned by |
|------------------|-------------------|-------------------|-----------|------------------------|--------------------------|-------------|
| # 1 | Lakes Entrance | 20.01.48 | 3 | 44.0 | | |
| # 2 | Seaspray | * 22.01.48 | 5 | 40.0 | 35.6 | |
| † 3 | Marlo | 27.01.48 | 10 | 45.0 | | |
| † 4 | Lakes Entrance | 10.02.48 | 24 | 40.0 | | |
| # 5 | Marlo | 15.02.48 | 29 | 37.0 | 43.2 | A |
| # 6 | Lakes Entrance | 09.03.48 | 52 | 46.0 | | |
| # 7 | Seaspray | 06.04.48 | 80 | 42.0 | | |
| † 8 | NSW, Boydtown | 26.04.48 | 98 | 42.0 | 53.7 | |
| † 9 | NSW, Moruya | 14.05.48 | 118 | 43.0 | 44.4 | P |
| 10 | NSW, Disaster Bay | * 23.08.48 | 219 | 44.0 | | P |
| 11 | Gabo | 30.08.48 | 226 | 41.0 | 41.7 | P |
| † 12 | " | " | " | 43.0 | 45.7 | P |

Experiment No. VIC 016

Place of release: Lakes Entrance Date of release: 22 April 1952

Number of fish released: 200

Per cent recaptured: 15.5

| Recapture number | Locality | Date of recapture | Days free | Length (cm) at release | Returned by |
|------------------|-----------------|-------------------|-----------|------------------------|-------------|
| 1 | Metung | 23.04.52 | 1 | 53.3 | |
| 2 | Port Welshpool | 06.05.52 | 14 | 48.3 | P |
| 3 | Lakes Entrance | 12.05.52 | 20 | 52.1 | P |
| 4 | " " | " " | " " | 54.6 | |
| 5 | Kent Islands | 14.05.52 | 22 | 35.6 | P |
| 6 | Lake Tyers | 18.05.52 | 26 | 45.7 | |
| 7 | Lakes Entrance | 28.05.52 | 36 | 44.4 | |
| 8 | NSW, Wonboyn | 09.06.52 | 48 | 47.3 | P |
| 9 | " " | 18.06.52 | 57 | 47.0 | |
| 10 | " " | " " | " " | 47.6 | P |
| 11 | Mallacoota | 25.06.52 | 64 | 45.7 | P |
| 12 | NSW, Wonboyn | 15.07.52 | 84 | 45.1 | |
| 13 | " " | " " | " " | 46.4 | |
| 14 | " " | " " | " " | 47.0 | |
| 15 | " " | 22.07.52 | 91 | 43.8 | |
| 16-18 | " " | * 01.09.52 | 132 | | |
| 19 | NSW, Eden | 11.09.52 | 142 | 46.4 | |
| 20 | Mornington | 12.09.52 | 143 | 48.3 | |
| 21 | NSW, Ulladulla | 16.09.52 | 147 | 49.5 | |
| 22 | Mallacotta | 14.10.52 | 175 | | |
| 23 | NSW, Merimbula | 13.11.52 | 205 | 47.0 | P |
| 24-25 | New South Wales | * 30.11.52 | 222 | | |
| 26 | Lake Tyers | 02.12.52 | 224 | | |
| 27 | NSW, Tathra | 03.03.53 | 315 | 45.7 | |
| 28 | NSW, Narooma | 18.03.53 | 330 | 47.0 | P |
| 29-30 | NSW, Wonboyn | * 31.03.53 | 343 | | P |
| 31 | SA, Port Neill | 30.10.54 | 921 | | |

Experiment No. VIC 017

Place of release: Lakes Entrance Date of release: 23 April 1952

Number of fish released: 100

Per cent recaptured: 19.0

| Recapture number | Locality | Date of recapture | Days free | Length (cm) at release | Length (cm) at recapture | Returned by |
|------------------|-----------------|-------------------|-----------|------------------------|--------------------------|-------------|
| 1 | Lakes Entrance | 20.05.52 | 27 | | 41.9 | |
| 2 | Seaspray | 22.05.52 | 29 | | 41.9 | |
| 3 | NSW, Wonboyn | 09.06.52 | 47 | | 47.6 | P |
| 4 | " " | 18.06.52 | 56 | | 47.6 | P |
| 5 | " " | 22.07.52 | 90 | | 45.7 | |
| 6 | " " | " | " | | 47.0 | |
| 7 | " " | " | " | | 47.6 | |
| 8 | Mallacotta | * 31.08.52 | 130 | | | P |
| 9 | NSW, Wonboyn | * 01.09.52 | 131 | | | |
| 10 | " " | " | " | | 47.0 | |
| 11 | " " | 23.09.52 | 153 | | 44.4 | |
| 12 | " " | " | " | | 47.0 | |
| 13 | NSW, Merimbula | 04.10.52 | 164 | | 44.4 | |
| 14 | Lakes Entrance | 21.10.52 | 181 | | 38.7 | |
| 15 | NSW, Merimbula | 13.11.52 | 204 | | 47.0 | |
| 16 | NSW, Eden | 14.11.52 | 205 | | 50.8 | |
| 17 | NSW, Jervis Bay | 15.11.52 | 206 | | 45.7 | |
| 18 | Port Welshpool | 19.01.53 | 271 | | 55.9 | |
| 19 | NSW, Wonboyn | * 31.03.53 | 343 | | | P |

Experiment No. VIC 018

Place of release: Lakes Entrance
 Number of fish released: 300
 Per cent recaptured: 15.7

Date of release: 5 January 1956
 Lengths: 42-48 cm (22)

| Recapture number | Locality | Date of recapture | Days free | Length (cm) at release | Length (cm) at recapture | Returned by |
|------------------|-----------------|-------------------|-----------|------------------------|--------------------------|-------------|
| 1 | Lake Tyers | 07.01.56 | 3 | | 50.8 | |
| 2-3 | Lakes Entrance | " | " | | 50.8 | |
| 4 | " " | 08.01.56 | 4 | | 51.4 | |
| 5 | Marlo | " | " | | 50.8 | |
| 6 | Lake Tyers | " | " | | | A |
| 7 | Lakes Entrance | 09.01.56 | 5 | | 40.6 | |
| 8 | " " | 10.01.56 | 6 | | 54.6 | |
| 9 | " " | 12.01.56 | 8 | | 53.3 | |
| 10 | Marlo | " | " | | 48.3 | |
| 11 | Lakes Entrance | 13.01.56 | 9 | | | A |
| 12 | Marlo | 14.01.56 | 10 | | 57.1 | A |
| 13 | Lakes Entrance | 15.01.56 | 11 | | 53.3 | |
| 14 | " " | 16.01.56 | 12 | 44.2 | 50.8 | |
| 15 | " " | " | " | | 45.7 | |
| 16 | " " | " | " | | 52.7 | A |
| 17 | Paynesville | " | " | | 57.1 | P |
| 18 | Gippsland Lakes | 17.01.56 | 13 | | 49.5 | |
| 19 | Lakes Entrance | " | " | | 50.8 | |
| 20 | " " | 20.01.56 | 16 | | 54.6 | |
| 21 | Seaspray | 21.01.56 | 17 | | 42.9 | |
| 22 | Lakes Entrance | 22.01.56 | 18 | | 52.7 | |
| 23 | " " | " | " | | 53.3 | |
| 24 | " " | 23.01.56 | 19 | | 52.7 | |
| 25 | " " | " | " | | 54.6 | |
| 26 | Lake Tyers | " | " | | 53.3 | A |
| 27 | Seaspray | 24.01.56 | 20 | | 52.1 | |
| 28 | Lakes Entrance | 27.01.56 | 23 | | 48.3 | |
| 29 | " " | " | " | | 53.3 | |
| 30 | " " | 28.01.56 | 24 | | 53.3 | |
| 31 | " " | 29.01.56 | 25 | | 47.0 | A |
| 32 | " " | " | " | | 56.5 | A |
| 33 | " " | 30.01.56 | 26 | | 48.3 | A |
| 34 | " " | 02.02.56 | 29 | | 50.8 | A? |
| 35 | Kilcunda | " | " | 44.5 | 43.8 | |
| 36 | Norman Bay | 08.02.56 | 35 | 43.0 | 48.3 | A |
| 37 | McGaurans Beach | " | " | | 52.1 | |
| 38 | Marlo | 25.02.56 | 52 | | | |
| 39 | Seaspray | 02.03.56 | 58 | | 54.6 | |
| 40 | Lakes Entrance | 04.03.56 | 60 | | | A |
| 41 | " " | 02.04.56 | 89 | | 50.8 | |
| 42 | Marlo | " | " | | 49.5 | |

Experiment No. VIC 018 Cont.

| Recapture number | Locality | Date of recapture | Days free | Length (cm) at release | Returned by |
|------------------|----------------|-------------------|-----------|------------------------|-------------|
| 43 | Lakes Entrance | 26.04.56 | 113 | | |
| 44 | Tasmania | * 30.04.56 | 117 | | P |
| 45-46 | Lakes Entrance | * 31.05.56 | 148 | | P |
| 47 | Sydenham Inlet | 22.06.56 | 170 | 51.4 | A |

Experiment No. VIC 019

Place of release: Lakes Entrance Date of release: 17 April 1963
 Number of fish released: 102 Lengths: [27-35 cm (95%); 50 cm (5%)]
 Per cent recaptured: 56.9 Subspecies: Eastern (75%); Western (25%)

| Recapture number | Locality | Date of recapture | Days free | Length (cm) at release | Returned by |
|------------------|----------------|-------------------|-----------|------------------------|-------------|
| 1 | Ocean Grange | 18.04.63 | 1 | 53.7 | A |
| 2-4 | Lakes Entrance | 20.04.63 | 3 | | P |
| 5 | " " | 23.04.63 | 6 | 28.0 | P |
| 6 | " " | " " | " " | 33.1 | P |
| 7 | " " | " " | " " | 34.5 | P |
| 8 | Shallow Inlet | 05.05.63 | 18 | 41.9 | |
| 9-10 | Lakes Entrance | 16.06.63 | 60 | | P |
| 11-13 | " " | " " | " " | 30.0 | P |
| 14 | " " | " " | " " | 30.4 | P |
| 15 | " " | " " | " " | 31.2 | P |
| 16 | " " | " " | " " | 31.3 | P |
| 17 | " " | " " | " " | 32.0 | P |
| 18 | " " | " " | " " | 32.3 | P |
| 19 | " " | " " | " " | 32.5 | P |
| 20 | " " | " " | " " | 33.0 | P |
| 21 | " " | " " | " " | 33.7 | P |
| 22 | " " | " " | " " | 34.0 | P |
| 23 | " " | " " | " " | 38.0 | P |
| 24-25 | Manns Beach | 23.06.63 | 67 | 35.6 | P |
| 26 | Mallacoota | 23.08.63 | 128 | | P |
| 27 | Manns Beach | * 31.08.63 | 136 | | P |
| 28 | Tamboon Inlet | 09.09.63 | 145 | 38.7 | P |
| 29-30 | Cape Conran | 10.10.63 | 176 | | P |

Experiment No. VIC 019 cont.

| Recapture number | Locality | | Date of recapture | Days free | Length (cm) at release | Length (cm) at recapture | Returned by |
|------------------|--------------------------|---|-------------------|-----------|------------------------|--------------------------|-------------|
| 31 | Manns Beach | | 13.10.63 | 179 | | 38.4 | A? |
| 32-33 | NSW, Wonboyn | * | 13.01.64 | 271 | | | P |
| 34 | NSW, Eden | * | 28.02.64 | 317 | | 48.3 | P |
| 35 | Lakes Entrance (32 km W) | | 25.05.64 | 404 | | | P |
| 36-37 | " " | | " | " | | | P |
| 38 | " (64 km E) | | 29.05.64 | 408 | | | P |
| 39 | " " " | | " | " | | 37.0 | P |
| 40 | " " " | | " | " | | 41.0 | P |
| 41 | " " " | | " | " | | 44.0 | P |
| 42 | " " " | | 26.06.64 | 436 | | | P |
| 43 | " " " | | 10.07.64 | 450 | | | P |
| 44-45 | NSW, Eden | * | 31.12.64 | 624 | | | P |
| 46-47 | " " | | 10.02.65 | 665 | | | P |
| 48 | NSW, Saltwater Creek | | " | " | | | P |
| 49 | NSW, Wonboyn | | 11.02.65 | 666 | | | P |
| 50 | NSW, Pinnacles | | 23.02.65 | 678 | | | P |
| 51 | Lakes Entrance | * | 26.02.65 | 681 | | | P |
| 52 | " " | | 26.02.65 | " | | | P |
| 53 | NSW, Moruya | | 02.04.65 | 716 | | | P |
| 54 | Lakes Entrance | | 01.09.65 | 868 | | | P |
| 55 | NSW, Moruya | | 25.09.65 | 892 | | | P |
| 56 | NSW, Eden | * | 31.12.65 | 989 | | | P |
| 57 | " " | | 04.02.66 | 1024 | | | P |
| 58 | WA, Bremer Bay | | 30.08.67 | 1596 | | | P |

Experiment No. VIC 021

Place of release: Lakes Entrance
 Number of fish released: 168
 Per cent recaptured: 47.0

Date of release: 23 April 1963
 Lengths: (29-34 cm)
 Subspecies: Eastern (65%); Western (35%)

| Recapture number | Locality | Date of recapture | Days free | Length (cm) at release | Length (cm) at recapture | Returned by |
|------------------|----------------|-------------------|-----------|------------------------|--------------------------|-------------|
| 1 | Lake King | 19.04.63 | 6 | | | P |
| 2-6 | Lakes Entrance | 16.06.63 | 54 | | | P |
| 7 | " " | " " | " " | 28.0 | | P |
| 8-9 | " " | " " | " " | 29.0 | | P |
| 10-11 | " " | " " | " " | 30.0 | | P |
| 12 | " " | " " | " " | 30.2 | | P |
| 13 | " " | " " | " " | 30.3 | | P |
| 14-15 | " " | " " | " " | 30.7 | | P |
| 16-22 | " " | " " | " " | 31.0 | | P |
| 23-24 | " " | " " | " " | 31.2 | | P |
| 25 | " " | " " | " " | 31.3 | | P |
| 26-28 | " " | " " | " " | 31.5 | | P |
| 29 | " " | " " | " " | 31.6 | | P |
| 30 | " " | " " | " " | 31.8 | | P |
| 31-32 | " " | " " | " " | 32.0 | | P |
| 33-36 | " " | " " | " " | 32.5 | | P |
| 37 | " " | " " | " " | 33.0 | | P |
| 38 | " " | " " | " " | 33.7 | | P |
| 39-44 | " " | " " | " " | 34.0 | | P |
| 45 | " " | " " | " " | 34.3 | | P |
| 46 | " " | " " | " " | 34.5 | | P |
| 47 | " " | " " | " " | 35.0 | | P |
| 48 | " " | " " | " " | 35.4 | | P |
| 49 | " " | " " | " " | 30.6 | | P |
| 50 | " " | " " | " " | 32.2 | | P |
| 51 | Manns Beach | 23.06.63 | 61 | 35.5 | | P |
| 52 | Tamboon Inlet | 31.07.63 | 99 | 35.6 | | P |
| 53 | Manns Beach | 22.09.63 | 152 | 33.0 | | |
| 54 | Cape Conran | 10.10.63 | 170 | | | P |
| 55 | Paynesville | 02.12.63 | 223 | 34.9 | | P |
| 56 | Lakes Entrance | * 06.12.63 | 227 | 34.3 | | P |
| 57 | " " | 30.01.64 | 282 | | | P |
| 58 | Oberon Bay | * 15.04.64 | 358 | | | P |
| 59 | Lakes Entrance | * 18.04.64 | 361 | | | P |
| 60 | NSW, Moruya | 03.05.64 | 376 | 36.0 | | P |
| 61-64 | Lakes Entrance | 25.05.64 | 398 | | | P |
| 65 | " " (65 km E) | 29.05.64 | 402 | 38.0 | | P |
| 66 | " " | " " | " " | 39.0 | | P |
| 67 | " " | 26.06.64 | 430 | | | P |
| 68 | Cape Conran | 03.07.64 | 437 | | | P |

Experiment No. VIC 021 cont.

| Recapture number | Locality | Date of recapture | Days free | Length (cm) at release | Length (cm) at recapture | Returned by |
|------------------|-------------------|-------------------|-----------|------------------------|--------------------------|-------------|
| 69 | NSW, Wonboyn | 26.10.64 | 552 | | | P |
| 70-72 | NSW, Eden | * 31.12.64 | 618 | | | P |
| 73-75 | NSW, Wonboyn | 13.01.65 | 631 | | | P |
| 76 | NSW, Logans Beach | 14.01.65 | 632 | | | P |
| 77 | NSW, Eden | 16.01.65 | 634 | | | P |
| 78 | Lakes Entrance | * 26.02.65 | 675 | | | P |
| 79 | " " | 21.03.65 | 698 | | | P |

Experiment No. VIC 022

Place of release: Flannigan Island Date of release: 6 May 1963
 Number of fish released: 64 Lengths: (16.5-21.5 cm)
 Per cent recaptured: 46.9 Subspecies: Eastern (65%); Western (35%)

| Recapture number | Locality | Date of recapture | Days free | Length (cm) at release | Length (cm) at recapture | Returned by |
|------------------|--------------------------|-------------------|-----------|------------------------|--------------------------|-------------|
| 1 | Reeves Channel | 07.05.63 | 1 | | | P |
| 2 | Bancroft Bay | 09.05.63 | 3 | 21.6 | | P |
| 3 | Metung | 15.05.63 | 9 | 24.8 | | P |
| 4-5 | Reeves Channel | * 19.05.63 | 13 | | | P |
| 6 | Metung | 22.05.63 | 16 | 22.9 | | P |
| 7-8 | Reeves Channel | 23.05.63 | 17 | | | P |
| 9 | Lakes Entrance | 27.05.63 | 21 | 27.9 | | A |
| 10 | Lake Bunya | 28.05.63 | 22 | 21.6 | | A |
| 11 | Bancroft Bay | * 31.05.63 | 25 | 21.6 | | P |
| 12 | " " | " " | " " | 23.5 | | P |
| 13 | " " | " " | " " | 24.1 | | P |
| 14 | Lakes Entrance | 06.06.63 | 31 | 21.0 | | P |
| 15 | Metung | 09.06.63 | 34 | 22.9 | | P |
| 16 | " | 12.06.63 | 37 | 21.6 | | P |
| 17 | Bancroft Bay | 18.06.63 | 43 | 22.9 | | P |
| 18 | Reeves Channel | 27.06.63 | 52 | | | P |
| 19 | " " | * 31.07.63 | 86 | 22.2 | | P |
| 20 | " " | " " | " " | 22.9 | | P |
| 21 | " " | * 30.08.63 | 116 | | | P |
| 22 | Pelican Island | 12.10.63 | 159 | | | P |
| 23 | Lakes Entrance | 17.10.63 | 164 | 22.0 | | P |
| 24 | " " | 29.10.63 | 176 | 25.4 | | A |
| 25 | Gippsland Lakes | * 25.11.63 | 203 | | | P |
| 26-27 | Lakes Entrance | 30.01.64 | 269 | | | P |
| 28 | NSW, Wonboyn | 29.03.64 | 328 | 35.6 | | A |
| 29 | Lakes Entrance (51 km E) | 31.05.64 | 391 | | | P |
| 30 | " " | 26.02.65 | 662 | | | P |

Experiment No. VIC 023

Place of release: Flannigan Island Date of release: 7 May 1963
 Number of fish released: 66 Lengths: (16.5 - 21.5 cm)
 Per cent recaptured: 34.8 Subspecies: Eastern (65%); Western (35%)

| Recapture number | Locality | Date of recapture | Days free | Length (cm) at release | Returned by |
|------------------|-----------------|-------------------|-----------|------------------------|-------------|
| 1 | Metung | 19.05.63 | 12 | 21.0 | P |
| 2 | Bancroft Bay | * 31.05.63 | 63 | 21.6 | P |
| 3 | " " | " " | " " | 22.9 | P |
| 4 | " " | " " | " " | 23.5 | P |
| 5-7 | " " | " " | " " | 24.1 | P |
| 8-9 | " " | " " | " " | 24.8 | P |
| 10 | " " | 26.06.63 | 50 | 21.0 | P |
| 11 | Reeves Channel | 27.06.63 | 51 | | P |
| 12-14 | " " | * 31.07.63 | 85 | 21.6 | P |
| 15-16 | " " | " " | " " | 22.9 | P |
| 17 | Lakes Entrance | 23.08.63 | 108 | 22.9 | A |
| 18 | Reeves Channel | * 30.08.63 | 115 | | P |
| 19 | Gippsland Lakes | 20.12.63 | 227 | | P |
| 20 | Lakes Entrance | * 10.05.64 | 369 | | P |
| 21-22 | " " (32 km W) | 25.05.64 | 384 | | P |
| 23 | Port Welshpool | 10.01.66 | 979 | | P |

Experiment No. VIC 024

Place of release: Flannigan Island Date of release: 8 May 1963
 Number of fish released: 38 Lengths: (17.5 - 21.7 cm)
 Per cent recaptured: 52.6 Subspecies: Eastern (32%); Western (68%)

| Recapture number | Locality | Date of recapture | Days free | Length (cm) at release | Returned by |
|------------------|-----------------|-------------------|-----------|------------------------|-------------|
| 1-2 | Metung | 28.05.63 | 20 | 24.1 | P |
| 3 | Bancroft Bay | * 31.05.63 | 23 | 23.5 | P |
| 4 | " " | " " | " " | 25.4 | P |
| 5 | Reeves Channel | 16.06.63 | 39 | 22.9 | P |
| 6 | Bancroft Bay | 18.06.63 | 41 | 22.9 | P |
| 7 | Reeves Channel | * 31.07.63 | 84 | 21.6 | P |
| 8 | " " | " " | " " | 22.2 | P |
| 9-11 | " " | " " | " " | 22.9 | P |
| 12 | " " | " " | " " | 23.5 | P |
| 13 | Bancroft Bay | " " | " " | " " | P |
| 14 | " " | * 04.08.63 | 88 | 22.9 | P |
| 15 | " " | " " | " " | 24.1 | P |
| 16 | Lakes Entrance | 17.08.63 | 101 | 26.0 | P |
| 17 | Kalimna | 22.08.63 | 106 | 29.2 | A |
| 18 | Reeves Channel | * 30.08.63 | 114 | " " | P |
| 19 | Gippsland Lakes | 06.09.63 | 121 | 22.9 | P |
| 20 | Lakes Entrance | * 05.03.64 | 302 | 28.0 | A |

Experiment No. VIC 025

Place of release: Flannigan Island Date of release: 9 May 1963
 Number of fish released: 58 Lengths: (17.2 - 20.2 cm)
 Per cent recaptured: 48.3 Subspecies: Eastern (40%); Western (60%)

| Recapture number | Locality | Date of recapture | Days free | Length (cm) at release | Recapture | Return by |
|------------------|-----------------|-------------------|-----------|------------------------|-----------|-----------|
| 1-5 | Reeves Channel | 12.05.63 | 3 | | | P |
| 6-7 | " " | 21.05.63 | 12 | 23.5 | | P |
| 8 | Bancroft Bay | * 31.05.63 | 22 | 22.9 | | P |
| 9 | " " | " " | " | 23.5 | | P |
| 10 | Reeves Channel | 05.06.63 | 27 | 20.3 | | P |
| 11 | " " | " " | " | 21.0 | | P |
| 12 | " " | " " | " | 21.6 | | P |
| 13-14 | " " | " " | " | 22.2 | | P |
| 15 | " " | " " | " | 22.9 | | P |
| 16 | " " | " " | " | 24.1 | | A |
| 17-18 | " " | " " | " | 24.1 | | P |
| 19 | " " | " " | " | 25.4 | | P |
| 20 | Bancroft Bay | * 04.08.63 | 87 | 21.6 | | P |
| 21 | Pelican Island | 12.10.63 | 156 | | | P |
| 22 | Gippsland Lakes | 11.11.63 | 186 | | | P |
| 23 | " " | * 25.11.63 | 200 | | | P |
| 24 | " " | * 30.12.63 | 235 | | | P? |
| 25-26 | Lakes Entrance | 30.01.64 | 266 | | | P |
| 27 | " " | * 26.04.64 | 353 | | | P |
| 28 | " " | 26.02.65 | 659 | | | P |

Experiment No. VIC 026

Place of release: Fraser Island
 Number of fish released: 68
 Per cent recaptured: 29.4

Date of release: 12 May 1963
 Lengths: (17.7-19.6 cm)
 Subspecies: Eastern (40%); Western (60%)

| Recapture number | Locality | Date of recapture | Days free | Length (cm) at release | Returned by |
|------------------|----------------|-------------------|-----------|------------------------|-------------|
| 1 | Reeves Channel | 30.05.63 | 18 | | P |
| 2-3 | Bancroft Bay | * 31.05.63 | 19 | 22.2 | P |
| 4 | " " | " " | " " | 22.9 | P |
| 5 | " " | " " | " " | 23.5 | P |
| 6 | Metung | 27.06.63 | 45 | 21.6 | P |
| 7 | Reeves Channel | * 31.07.63 | 80 | 20.3 | P |
| 8-11 | " " | " " | " " | 21.6 | P |
| 12 | Lakes Entrance | * 28.08.63 | 108 | 22.9 | P |
| 13 | Reeves Channel | * 30.08.63 | 110 | | P |
| 14-15 | Pelican Island | 12.10.63 | 153 | | P |
| 16-17 | Lakes Entrance | 30.01.64 | 263 | | P |
| 18 | " " | * 26.04.64 | 350 | | P |
| 19 | " " | 29.12.64 | 597 | | P |
| 20 | " " | 14.05.65 | 733 | | P |

Experiment No. VIC 027

Place of release: Fraser Island
 Number of fish released: 72
 Per cent recaptured: 6.9

Date of release: 13 May 1963
 Lengths: (17.7 - 19.6 cm)
 Subspecies: Eastern (40%); Western (60%)

| Recapture number | Locality | Date of recapture | Days free | Length (cm) at release | Returned by |
|------------------|--------------------------|-------------------|-----------|------------------------|-------------|
| 1 | Bancroft Bay | * 31.05.63 | 18 | 24.1 | P |
| 2 | Metung | 02.06.63 | 20 | 19.7 | P |
| 3 | Reeves Channel | * 31.07.63 | 79 | 21.6 | P |
| 4 | " " | * 30.08.63 | 109 | | P |
| 5 | Lakes Entrance (32 km W) | 25.05.64 | 378 | | P |

Experiment No. VIC 028

Place of release: Rigby Island
 Number of fish released: 76
 Per cent recaptured: 28.9

Date of release: 14 May 1963
 Lengths: (19.5-21.7 cm)
 Subspecies: Eastern (36%); Western (64%)

| Recapture number | Locality | Date of recapture | Days free | Length (cm) at release | Length (cm) at recapture | Returned by |
|------------------|----------------|-------------------|-----------|------------------------|--------------------------|-------------|
| 1 | Reeves Channel | 23.05.63 | 9 | | | R |
| 2 | Lakes Entrance | 26.05.63 | 12 | | 23.5 | A? |
| 3-4 | Reeves Channel | 06.06.63 | 23 | | | P |
| 5 | Metung | 13.06.63 | 30 | | 23.5 | P |
| 6 | Lake Bunga | 15.06.63 | 32 | | 30.5 | A |
| 7-8 | Reeves Channel | * 31.07.63 | 78 | | 22.9 | P |
| 9-10 | " " | " " | " " | | 25.4 | P |
| 11 | Lakes Entrance | 18.07.63 | 65 | | 26.7 | A? |
| 12 | Bancroft Bay | * 04.08.63 | 82 | | 27.3 | P |
| 13 | Pelican Island | 12.10.63 | 151 | | | P |
| 14 | Lakes Entrance | 30.01.64 | 261 | | | P |
| 15 | " " | * 18.02.64 | 280 | | 33.0 | |
| 16 | " " (32 km w) | 25.05.64 | 377 | | | P |
| 17 | " " | * 31.12.64 | 597 | | | P |
| 18 | NSW, Wreck Bay | 03.02.65 | 631 | | 41.6 | A? |
| 19 | Lakes Entrance | 14.05.65 | 731 | | | P |
| 20 | " " | * 05.06.65 | 753 | | | P |
| 21 | " " | * 31.12.65 | 962 | | | P |
| 22 | Port Welshpool | 29.01.66 | 991 | | | P |

Experiment No. VIC 029

Place of release: Rigby Island
 Number of fish released: 130
 Per cent recaptured: 25.4

Date of release: 15 May 1963
 Lengths: (19.5-22.5 cm)
 Subspecies: Eastern (50%), Western (50%)

| Recapture number | Locality | Date of recapture | Days free | Length (cm) at release | Returned by |
|------------------|----------------|-------------------|-----------|------------------------|-------------|
| 1 | Lakes Entrance | 26.05.63 | 11 | 23.5 | A? |
| 2 | Bancroft Bay | * 31.05.63 | 16 | | P |
| 3 | " " | " " | " " | 25.4 | P |
| 4-5 | Reeves Channel | 06.06.63 | 22 | | P |
| 6 | Lakes Entrance | 16.06.63 | 32 | 22.2 | P |
| 7 | Metung | 19.06.63 | 35 | 24.1 | P |
| 8 | " | 20.06.63 | 36 | 27.9 | P |
| 9 | Bancroft Bay | 26.06.63 | 42 | 21.0 | P |
| 10 | " " | " " | " " | 24.1 | P |
| 11 | Lakes Entrance | " " | " " | | P |
| 12 | Reeves Channel | * 31.07.63 | 77 | | P |
| 13 | " " | " " | " " | 20.3 | P |
| 14-16 | " " | " " | " " | 22.9 | P |
| 17 | " " | " " | " " | 24.1 | P |
| 18 | " " | 01.10.63 | 139 | 33.0 | P |
| 19 | Lake Tyers | 04.01.64 | 234 | 27.9 | A? |
| 20-22 | Lakes Entrance | 30.01.64 | 260 | | P |
| 23 | " " | 10.04.64 | 331 | 31.1 | A |
| 24 | " " | 25.04.64 | 346 | | P |
| 25 | " " | * 26.04.64 | 347 | | P |
| 26 | " (32 km W) | 25.05.64 | 376 | | P |
| 27 | " (51 km E) | 31.05.64 | 382 | | P |
| 28 | Metung | 31.08.64 | 474 | | P |
| 29 | Lakes Entrance | 18.01.65 | 614 | | P |
| 30 | " " (18 km E) | 08.02.65 | 635 | | P |
| 31 | NSW, Eden | 27.04.65 | 713 | | P |
| 32 | " " | 02.05.65 | 718 | | P |
| 33 | Lakes Entrance | * 31.12.65 | 961 | | P |

Experiment No. VIC 030

Place of release: Fraser Island
 Number of fish released: 37
 Per cent recaptured: 21.6

Date of release: 22 May 1963
 Lengths: (18.3-21.5 cm)
 Subspecies: Eastern (40%); Western (60%)

| Recapture number | Locality | Date of recapture | Days free | Length (cm) at release | Returned by |
|------------------|----------------|-------------------|-----------|------------------------|-------------|
| 1 | Reeves Channel | 23.05.63 | 1 | | P |
| 2 | " " | 30.05.63 | 8 | | P |
| 3 | Lakes Entrance | 09.06.63 | 18 | 27.3 | P? |
| 4 | Reeves Channel | 27.06.63 | 36 | | P |
| 5-6 | " " | * 31.07.63 | 70 | 25.4 | P |
| 7 | North Arm | 05.10.63 | 136 | 26.7 | A? |
| 8 | Lakes Entrance | 17.01.65 | 606 | | P |

Experiment No. VIC 031

Place of release: Cunningham Arm
 Number of fish released: 100
 Per cent recaptured: 1.0

Date of release: 25 May 1963
 Lengths: (17.7- 24.5 cm)
 Subspecies: Eastern (58%); Western (43%)

| Recapture number | Locality | Date of recapture | Days free | Length (cm) at release | Returned by |
|------------------|----------|-------------------|-----------|------------------------|-------------|
| 1 | Marlo | 25.04.64 | 336 | 31.7 | A |

Experiment No. VIC 032

Place of release: Cunningham Arm
 Number of fish released: 100
 Per cent recaptured: 0

Date of release: 26 May 1963
 Lengths: (17.7 - 24.5 cm)
 Tag type: Eastern (58%); Western (43%)

Experiment No. VIC 033

Place of release: Bulmers Jetty
 Number of fish released: 36
 Per cent recaptured: 19.4

Date of release: 27 May 1963
 Lengths: (17.5 -22.0 cm)
 Subspecies: Eastern (33%); Western (67%)

| Recapture number | Locality | Date of recapture | Days free | Length (cm) at release | Length (cm) at recapture | Returned by |
|------------------|----------------|-------------------|-----------|------------------------|--------------------------|-------------|
| 1 | Reeves Channel | 18.06.63 | 22 | | | P |
| 2 | " " | * 31.07.63 | 65 | | 20.3 | P |
| 3 | " " | " " | " | | 22.9 | P |
| 4 | Bancroft Bay | * 04.08.63 | 69 | | 26.7 | P |
| 5 | Gippsland Lake | * 02.10.63 | 128 | | 27.9 | P |
| 6 | Lakes Entrance | 30.01.64 | 248 | | | P |
| 7 | " " | * 15.05.65 | 719 | | 40.0 | P |

Experiment No. VIC 034

Place of release: Fraser Island
 Number of fish released: 113
 Per cent recaptured: 25.7

Date of release: 27 May 1963
 Lengths: (16.5 - 21.5 cm)
 Subspecies: Eastern (60%); Western (40%)

| Recapture number | Locality | Date of recapture | Days free | Length (cm) at release | Length (cm) at recapture | Returned by |
|------------------|----------------|-------------------|-----------|------------------------|--------------------------|-------------|
| 1-3 | Reeves Channel | 30.05.63 | 3 | | | P |
| 4-5 | " " | 06.06.63 | 10 | | | P |
| 6 | " " | 27.06.63 | 31 | | | P |
| 7 | Lakes Entrance | 05.07.63 | 39 | | 22.2 | A |
| 8 | " " | " " | " | | 24.1 | A |
| 9 | Cunningham Arm | 21.07.63 | 55 | | 23.2 | A |
| 10-11 | Reeves Channel | * 31.07.63 | 65 | | | P |
| 12 | " " | " " | " | | 19.7 | P |
| 13 | " " | " " | " | | 21.0 | P |
| 14-17 | " " | " " | " | | 22.9 | P |
| 18 | " " | " " | " | | 23.5 | P |
| 19 | " " | " " | " | | 25.4 | P |
| 20 | Bancroft Bay | * 04.08.63 | 69 | | | P |
| 21 | Lakes Entrance | 27.08.63 | 92 | | 21.6 | P? |
| 22 | Reeves Channel | 01.09.63 | 97 | | 26.7 | A |
| 23 | Cunningham Arm | 02.09.63 | 98 | | 23.5 | A |
| 24 | Lakes Entrance | 30.01.64 | 248 | | | P |
| 25 | " " | 26.04.64 | 335 | | | P |
| 26 | " " (32 km W) | 10.05.64 | 349 | | | P |
| 27 | " " " | 25.05.64 | 364 | | 27.9 | P |
| 28 | NSW, Eden | 06.05.65 | 710 | | | P |
| 29 | Lakes Entrance | 14.05.65 | 718 | | | P |

Experiment No. VIC 035

Place of release: North Arm
 Number of fish released: 100
 Per cent recaptured: 29.0

Date of release: 27 May 1963
 Lengths: (16.5 - 21.5 cm)
 Subspecies: Eastern (60%); Western (40%)

| Recapture number | Locality | Date of recapture | Days free | Length (cm) at release | Returned by |
|------------------|----------------|-------------------|-----------|------------------------|-------------|
| 1-2 | Reeves Channel | 30.05.63 | 3 | | P |
| 3 | Bancroft Bay | * 31.05.63 | 4 | 22.2 | P |
| 4 | " " | " | 4 | 22.9 | P |
| 5-7 | Reeves Channel | 06.06.63 | 10 | | P |
| 8 | " " | 18.06.63 | 22 | | P |
| 9 | " " | 27.06.63 | 31 | | P |
| 10-11 | " " | * 31.07.63 | 65 | | P |
| 12 | " " | " | " | 21.0 | P |
| 13 | " " | " | " | 21.6 | P |
| 14 | " " | " | " | 22.2 | P |
| 15-17 | " " | " | " | 22.9 | P |
| 18 | " " | " | " | 24.1 | P |
| 19 | " " | " | " | 26.0 | P |
| 20 | North Arm | 30.08.63 | 95 | 16.5 | A |
| 21 | Reeves Channel | 01.10.63 | 127 | 29.2 | P |
| 22 | Pelican Island | 12.10.63 | 138 | | P |
| 23 | Lakes Entrance | 25.04.64 | 334 | | P |
| 24 | " " | 17.01.65 | 601 | | P |
| 25 | " " | 26.02.65 | 641 | | P |
| 26 | " " | * 05.06.65 | 740 | | P |
| 27 | Marlo | 06.06.65 | 741 | 31.7 | A |
| 28 | Lakes Entrance | * 31.12.65 | 949 | | P |
| 29 | NSW, Eden | 14.01.66 | 963 | | P |

Experiment No. VIC 036

Place of release: Cunningham Arm
 Number of fish released: 50
 Per cent recaptured: 0

Date of release: 28 May 1963
 Lengths: (17.7 - 24.5 cm)
 Subspecies: Eastern (58%); Western (43%)

Experiment No. VIC 037

Place of release: Bulmers Jetty
 Number of fish released: 100
 Per cent recaptured: 3.0

Date of release: 29 May 1963
 Lengths: (17.7 - 24.5 cm)
 Subspecies: Eastern (58%); Western (43%)

| Recapture number | Locality | Date of recapture | Days free | Length (cm) at release | Returned by |
|------------------|----------------|-------------------|-----------|------------------------|-------------|
| 1-2 | Reeves Channel | 30.05.63 | 1 | | P |
| 3 | " " | * 31.07.63 | 63 | 20.3 | P |

Experiment No. VIC 038

Place of release: Bulmers Jetty
 Number of fish released: 156
 Per cent recaptured: 9.6

Date of release: 30 May 1963
 Lengths: (17.7 - 24.5 cm)
 Subspecies: Eastern (58%); Western (43%)

| Recapture number | Locality | Date of recapture | Days free | Length (cm) at release | Returned by |
|------------------|--------------------------|-------------------|-----------|------------------------|-------------|
| 1 | Lakes Entrance | * 06.06.63 | 7 | 19.0 | P |
| 2 | Reeves Channel | 18.06.63 | 19 | | P |
| 3 | Western Port Bay | 17.07.63 | 48 | 23.0 | P |
| 4 | Lakes Entrance | 19.07.63 | 50 | 27.9 | A |
| 5 | " " | * 23.07.63 | 54 | 22.9 | A |
| 6 | Reeves Channel | * 31.07.63 | 62 | | P |
| 7 | Cunningham Arm | 14.08.63 | 76 | | A |
| 8 | Lakes Entrance | 17.08.63 | 79 | | |
| 9 | " " | 04.10.63 | 127 | 25.4 | A |
| 10 | McLaughans Inlet | * 28.12.63 | 212 | 27.9 | A? |
| 11 | Gippsland Lakes | * 30.12.63 | 214 | | P? |
| 12 | Lakes Entrance (51 km E) | 31.05.64 | 367 | | P |
| 13 | " " | 27.10.64 | 516 | 35.6 | A |
| 14-15 | " " | 08.02.65 | 620 | | P |

Experiment No. VIC 039

Place of release: Sydenham Inlet
 Number of fish released: 267
 Per cent recaptured: 50.6

Date of release: 13 June 1963
 Lengths: (41.5 - 50.0 cm)
 Subspecies: Eastern (100%)

| Recapture number | Locality | Date of recapture | Days free | Length (cm) at release | Returned by |
|------------------|-----------------------|-------------------|-----------|------------------------|-------------|
| 1-2 | NSW, Mowwarry | 21.06.63 | 8 | | P |
| 3 | Tamboon Inlet | 25.06.63 | 12 | 45.1 | |
| 4 | Lake Tyres | 29.06.63 | 16 | | P? |
| 5 | NSW, Pambula | 10.07.63 | 27 | | P |
| 6-8 | NSW, Kiah Beach | 24.07.63 | 41 | | P |
| 9 | " " " | 25.07.63 | 42 | | P |
| 10 | NSW, Fisheries Creek | 26.07.63 | 43 | | P |
| 11-16 | NSW, Kiah Beach | 29.07.63 | 46 | | P |
| 17-19 | NSW, Saltwater Creek | 31.07.63 | 48 | | P |
| 20 | Tamboon Inlet | " | " | 45.7 | P |
| 21 | " " | " | " | 47.0 | P |
| 22-25 | NSW, Wonboyn | 01.08.63 | 49 | | P |
| 26 | Mallacoota | 22.08.63 | 70 | 43.0 | P |
| 27 | " | " | " | 50.8 | P |
| 28 | " | " | " | 54.9 | P |
| 29 | " | " | " | 55.2 | P |
| 30-46 | " | " | " | | P |
| 47 | Tamboon Inlet | 09.09.63 | 88 | | P |
| 48-49 | " " | 14.09.63 | 93 | 46.4 | P |
| 50 | " " | " | " | 50.2 | P |
| 51 | " " | " | " | 55.9 | P |
| 52 | Mallacoota | 15.09.63 | 94 | 56.5 | P |
| 53-54 | Tamboon Inlet | 20.09.63 | 99 | 54.6 | P |
| 55 | " " | " | " | 45.1 | P |
| 56-57 | Mallacoota | 23.09.63 | 102 | | P |
| 58 | NSW, Broulee | 27.09.63 | 106 | 54.6 | P? |
| 59-61 | Sydenham Inlet | 29.09.63 | 108 | | P |
| 62-63 | " " | 09.10.63 | 118 | 47.0 | P |
| 64 | " " | " | " | 42.0 | P |
| 65 | " " | " | " | | P |
| 66-68 | Cape Conran | 10.10.63 | 119 | | P |
| 69-71 | Marlo | 18.10.63 | 127 | | P |
| 72 | NSW, Wonboyn | " | " | | P |
| 73-79 | NSW, Iron Prince Reef | 19.10.63 | 128 | | P |
| 80 | NSW, Cuttagee Beach | 11.11.63 | 151 | 47.0 | A |
| 81 | NSW, Logans Beach | 19.11.63 | 159 | | P |
| 82-83 | NSW, Mewtrees Beach | 26.11.63 | 166 | | P |
| 84 | " " " | " | " | 49.0 | P |
| 85 | " " " | " | " | 50.0 | P |
| 86 | " " " | " | " | 52.0 | P |
| 87 | NSW, Merimbula | 30.11.63 | 170 | 46.9 | P |

Experiment No. VIC 039 cont.

| Recapture number | Locality | Date of recapture | Days free | Length (cm) at release | Returned by |
|------------------|-----------------------|-------------------|-----------|------------------------|-------------|
| 88-89 | NSW, Broulee | 01.12.63 | 171 | | P |
| 90 | " " | " | " | 47.0 | P |
| 91 | " " | " | " | 48.0 | P |
| 92 | NSW, Wreck Bay | 06.12.63 | 176 | 54.5 | P |
| 93 | NSW, Logans Beach | * 07.12.63 | 177 | 50.0 | P |
| 94 | Letts Beach | * 18.12.63 | 188 | 47.0 | A? |
| 95 | NSW, Mowwarry | 19.12.63 | 189 | | P |
| 96 | NSW, Eden | 20.12.63 | 190 | | P |
| 97 | Lakes Entrance | 28.12.63 | 198 | | P |
| 98 | NSW, Tathra | 31.12.63 | 201 | 47.0 | P |
| 99 | NSW, Bermagui | 01.01.64 | 202 | 49.5 | P |
| 100 | NSW, Eden | 20.01.64 | 221 | | P |
| 101-103 | NSW, Bermagui | 21.01.64 | 222 | | P |
| 104 | NSW, Eden | 23.01.64 | 224 | | P |
| 105 | " " | * 28.02.64 | 260 | 48.3 | P |
| 106 | " " | * 01.03.64 | 262 | 47.0 | P |
| 107 | " " | " | " | 48.3 | P |
| 108-110 | Lakes Entrance | * 18.04.64 | 310 | | P |
| 111 | Cape Everard | 10.05.64 | 332 | 46.0 | P |
| 112 | " " | " | " | 47.0 | P |
| 113 | " " | " | " | 48.0 | P |
| 114 | Lakes Entrance | * 10.05.64 | " | | P |
| 115 | NSW, Merimbula | 17.05.64 | 339 | | P |
| 116 | NSW, Eden | 18.05.64 | 340 | | P |
| 117 | NSW, Pambula | " | " | | P |
| 118 | NSW, Tabourie | 23.05.64 | 345 | 52.7 | P |
| 119-122 | NSW, Eden | * 23.05.64 | " | | P |
| 123 | " " | * 24.05.64 | 346 | | P |
| 124 | " " | " | " | 48.0 | P |
| 125 | Pearl Point | 26.06.64 | 379 | | P |
| 126-127 | Lakes Entrance | " | " | | P |
| 128 | " " | 10.07.64 | 393 | | P |
| 129 | NSW, Mollymook Beach | 05.08.64 | 419 | 50.2 | P |
| 130 | NSW, Eden | 01.01.65 | 568 | | P |
| 131 | Lakes Entrance | * 02.05.65 | 689 | | P |
| 132 | NSW, New South Wales | * 31.10.65 | 871 | | P |
| 133 | NSW, Crockhaven Heads | 13.09.66 | 1188 | 58.4 | P |
| 134 | Gabo Island | 17.02.68 | 1710 | 62.0 | P |
| 135 | NSW, Nelson's Bay | 20.02.69 | 2079 | 63.5 | A |

Experiment No. VIC 040

Place of release: Cape Everard
 Number of fish released: 165
 Per cent recaptured: 66.7

Date of release: 13 June 1963
 Lengths: (45.0 ~ 49.5 cm)
 Subspecies: Eastern (100%)

| Recapture number | Locality | Date of recapture | Days free | Length (cm) at release | Length (cm) at recapture | Returned by |
|------------------|-----------------------|-------------------|-----------|------------------------|--------------------------|-------------|
| 1 | Pearl Point | 16.06.63 | 3 | | 54.6 | A |
| 2 | NSW, Mowwarry | 21.06.63 | 8 | | | P |
| 3 | NSW, Disaster Bay | 22.06.63 | 9 | | | P |
| 4 | NSW, Pambula | 09.07.63 | 26 | | 50.8 | P |
| 5 | NSW, Merimbula | 10.07.63 | 27 | | 55.9 | P |
| 6-7 | NSW, Kiah Beach | 24.07.63 | 41 | | | P |
| 8-9 | NSW, Saltwater Creek | 25.07.63 | 42 | | | P |
| 10-12 | " " " | 26.07.63 | 43 | | | P |
| 13-30 | NSW, Kiah Beach | 29.07.63 | 46 | | | P |
| 31 | NSW, Eden | " | " | | | P |
| 32-34 | NSW, Saltwater Creek | 31.07.63 | 48 | | | P |
| 35 | NSW, Wonboyn | 01.08.63 | 49 | | | P |
| 36-44 | Mallacoota | 22.08.63 | 70 | | | P |
| 45 | " | " | " | | 49.2 | P |
| 46-47 | " | " | " | | 52.1 | P |
| 48-49 | " | " | " | | 53.3 | P |
| 50 | " | " | " | | 54.0 | P |
| 51 | " | " | " | | 54.6 | P |
| 52 | " | " | " | | 56.5 | P |
| 53 | " | " | " | | 56.8 | P |
| 54 | " | " | " | | 57.1 | P |
| 55-66 | " | 23.08.63 | 71 | | | P |
| 67 | " | " | " | | 45.7 | P |
| 68-70 | Tamboon Inlet | 13.09.63 | 92 | | | P |
| 71-74 | Mallacoota | 23.09.63 | 102 | | | P |
| 75-76 | " | " | " | | 54.0 | P |
| 77 | " | " | " | | 54.6 | P |
| 78 | Sydenham Inlet | 29.09.63 | 108 | | | P |
| 79 | Cape Conran | 10.10.63 | 119 | | | P |
| 80-82 | NSW, Wonboyn | 18.10.63 | 127 | | | P |
| 83 | Marlo | " | " | | | P |
| 84-88 | NSW, Iron Prince Reef | 19.10.63 | 128 | | | P |
| 89 | NSW, Mewtrees Beach | 26.11.63 | 166 | | 47.0 | P |
| 90 | NSW, Merimbula | 30.11.63 | 170 | | 49.0 | P |
| 91 | NSW, Logans Beach * | 10.12.63 | 180 | | 47.0 | P |
| 92 | NSW, Eden | 17.12.63 | 187 | | | P |
| 93 | NSW, Mowwarry * | 18.12.63 | 188 | | | P |
| 94 | NSW, Eden | 20.12.63 | 190 | | | P |
| 95-99 | NSW, Tathra | 31.12.63 | 201 | | | P |
| 100 | NSW, Bermagui | 21.01.64 | 222 | | | P |
| 101 | Lakes Entrance * | 02.04.64 | 294 | | | P |

Experiment No. VIC 040 cont.

| Recapture number | Locality | Date of recapture | Days free | Length (cm) at release | at recapture | Returned by |
|------------------|--------------------|-------------------|-----------|------------------------|--------------|-------------|
| 102 | NSW, Moruya | 03.05.64 | 325 | | | P |
| 103 | " " | " | " | 48.0 | | P |
| 104-105 | NSW, Eden | * 23.05.64 | 345 | | | P |
| 106 | NSW, Tabourie | 23.05.64 | " | 52.1 | | P |
| 107 | NSW, Tathra | 27.05.64 | 349 | | | P |
| 108 | Gabo Island | 27.06.64 | 380 | | | P |
| 109 | NSW, Port Stephens | 01.12.64 | 537 | 68.6 | | P |
| 110 | NSW, Broulee | 15.03.66 | 1006 | 71.1 | | P |

Experiment No. VIC 041

Place of release: Lakes Entrance
 Number of fish released: 164
 Per cent recaptured: 45.1

Date of release: 16 June 1963
 Lengths: (28.5 - 34.8 cm)
 Subspecies: Eastern (89%); Western (11%)

| Recapture number | Locality | Date of recapture | Days free | Length (cm) at release | Returned by |
|------------------|------------------------|-------------------|-----------|------------------------|-------------|
| 1 | Shoal Inlet | 14.07.63 | 28 | 33.7 | A |
| 2 | " " | " " | " | 39.4 | A |
| 3 | Lakes Entrance | 16.07.63 | 30 | 37.5 | A |
| 4 | Tamboon Inlet | 31.07.63 | 45 | 34.3 | P |
| 5 | " " | " " | " | 35.6 | P |
| 6 | " " | " " | " | 48.3 | P |
| 7 | Cann River | 01.08.63 | 46 | 31.7 | A |
| 8 | " " | * 04.09.63 | 80 | 31.0 | P |
| 9 | Tamboon Inlet | 09.09.63 | 85 | 35.6 | P |
| 10 | " " | " " | " | 36.2 | P |
| 11 | " " | " " | " | 36.8 | P |
| 12 | Melbourne Fish Market | * 30.09.63 | 106 | | P |
| 13 | " " | " " | " | 40.6 | P |
| 14 | Manns Beach | 06.10.63 | 112 | 39.4 | A? |
| 15-17 | Cape Conran | 10.10.63 | 116 | | P |
| 18 | Manns Beach | * 13.10.63 | 119 | 31.7 | A |
| 19 | Cape Conran | 23.11.63 | 160 | 38.1 | A |
| 20 | Lakes Entrance | 28.12.63 | 195 | | P |
| 21 | Marlo | 21.01.64 | 219 | 41.9 | A |
| 22 | Lakes Entrance | * 18.04.64 | 307 | | P |
| 23 | NSW, Moruya | 03.05.64 | 322 | | P |
| 24-30 | Lakes Entrance | 25.05.64 | 344 | | P |
| 31 | " " (64 km E) | 29.05.64 | 348 | 38.0 | P |
| 32 | " " " " | " " | " | 39.0 | P |
| 34-35 | NSW, Worboyn | 19.12.64 | 552 | | P |
| 36-43 | NSW, Eden | * 31.12.64 | 564 | | P |
| 44 | NSW, Wonboyn | 09.01.65 | 573 | | P |
| 45-46 | " " | 13.01.65 | 577 | | P |
| 47 | NSW, Logans Beach | 14.01.65 | 578 | | P |
| 48-49 | NSW, Kiah Beach | 16.01.65 | 580 | | P |
| 50-52 | NSW, Eden | " " | " | | P |
| 53 | NSW, Pinnacles Beach | 17.02.65 | 612 | | P |
| 54 | Lakes Entrance | 26.02.65 | 621 | | P |
| 55-56 | NSW, Haycock Beach | 29.03.65 | 652 | | P |
| 57 | Lakes Entrance | 22.04.65 | 676 | | P |
| 58 | NSW, Wonboyn | 26.04.65 | 680 | | P |
| 59-66 | NSW, Eden | * 28.04.65 | 682 | | P |
| 67 | " " | 06.05.65 | 690 | | P |
| 68 | NSW, Jane Speers Beach | 11.05.65 | 695 | | P |
| 69 | NSW, Saltwater Creek | 27.05.65 | 711 | | P |
| 70 | NSW, Moruya | 25.09.65 | 832 | | P |

Experiment No. VIC 041 cont.

| Recapture number | Locality | Date of recapture | Days free | Length (cm) at release | recapture | Returned by |
|------------------|----------------------|-------------------|-----------|------------------------|-----------|-------------|
| 71 | NSW, Merimbula | 07.11.65 | 875 | | | P |
| 72-73 | NSW, New South Wales | * 25.10.66 | 1227 | | | P |
| 74 | WA, Cheyne Beach | 08.03.68 | 1727 | | | P |

Experiment No. VIC 042

Place of release: Portland
 Number of fish released: 90
 Per cent recaptured: 16.7

Date of release: 27 September 1963
 Lengths: (40-55 cm)
 Subspecies: Eastern (44%); Western (56%)

| Recapture number | Locality | Date of recapture | Days free | Length (cm) at release | recapture | Returned by |
|------------------|--------------------------------|-------------------|-----------|------------------------|-----------|-------------|
| 1 | Lakes Entrance (16 km west) | 02.04.64 | 188 | | 48.0 | P |
| 2 | Lakes Entrance | * 02.04.64 | " | | | P |
| 3 | Oberon Bay | * 20.04.64 | 206 | | | P |
| 4 | NSW, Eden | 21.04.64 | 207 | | 45.0 | P |
| 5 | Tamboon Inlet | 10.05.64 | 226 | | | P |
| 6 | NSW, Eden | 18.05.64 | 234 | | | P |
| 7 | NSW, Pambula | * 21.05.64 | 237 | | 48.0 | P |
| 8 | NSW, Eden | 28.06.64 | 275 | | | P |
| 9 | " " | * 31.12.64 | 461 | | | P |
| 10 | SA, Cape Cassini | * 28.10.65 | 762 | | 54.6 | P |
| 11 | " " " | * 28.10.65 | " | | 61.0 | P |
| 12 | WA, Bremer Bay | 24.02.66 | 881 | | | P |
| 13 | Western Australia | * 27.05.66 | 973 | | | P |
| 14 | WA, Cheyne Beach | 01.03.67 | 1251 | | 65.0 | P |
| 15 | " " " | 06.03.67 | 1256 | | | P |

Experiment No. VIC 043

Place of release: Fitzroy River
 Number of fish released: 99
 Per cent recaptured: 15.2

Date of release: 10 October 1963
 Lengths: [34 cm (2%); 39-50 cm (98%)]
 Subspecies: Eastern (60%); Western (40%)

| Recapture number | Locality | Date of recapture | Days free | Length (cm) at release | Returned by |
|------------------|---------------------|-------------------|-----------|------------------------|-------------|
| 1 | Lakes Entrance | 01.12.63 | 52 | 61.0 | A |
| 2 | NSW, Bermagui | 21.01.64 | 103 | | P |
| 3 | NSW, Eden | * 22.01.64 | 104 | | P |
| 4 | Lakes Entrance | * 17.04.64 | 190 | | P |
| 5 | NSW, Eden | * 05.05.64 | 208 | | P |
| 6 | NSW, Pambula | 18.05.64 | 221 | | P |
| 7 | NSW, Eden | " " | " " | | P |
| 8-9 | NSW, Pambula | 21.05.64 | 224 | | P |
| 10 | NSW, Eden | * 23.05.64 | 226 | | P |
| 11 | " " | * 24.05.64 | 227 | | P |
| 12 | NSW, Wonboyn | 28.06.64 | 262 | | P |
| 13 | " " | 20.07.64 | 284 | | P |
| 14 | SA, Kangaroo Island | 08.12.65 | 790 | 52.7 | P |
| 15 | Western Australia | * 31.03.67 | 1268 | | P |

Experiment No. VIC 044

Place of release: Marlo (16 km W)
 Number of fish released 50
 Per cent recaptured: 24.0

Date of release: 18 October 1963
 Lengths: (41-51cm)
 Subspecies: Eastern (100%)

| Recapture number | Locality | Date of recapture | Days free | Length (cm) at release | Returned by |
|------------------|-----------------------------|-------------------|-----------|------------------------|-------------|
| 1 | NSW, Logans Beach | 19.11.63 | 32 | | P |
| 2-3 | NSW, Mewtrees Beach | 26.11.63 | 39 | | P |
| 4 | " " " | " " | " " | 42.5 | P |
| 5 | Lakes Entrance (24 km W) | 02.12.63 | 45 | 53.3 | A |
| 6 | NSW, Eden | 20.05.64 | 39 | | P |
| 7 | NSW, Wonbogen | 04.05.64 | 199 | 55.2 | P |
| 8 | NSW, Binge Binge Beach | " " | " " | | P |
| 9 | Lakes Entrance (32 km W) | 10.05.64 | 205 | | P |
| 10 | NSW, Pambula | 18.05.64 | 213 | | P |
| 11 | NSW, Eden | 23.05.64 | 218 | | P |
| 12 | " " | 26.06.64 | 252 | | P |

Experiment No. VIC 045

Place of release: Barwon River
 Number of fish released 7
 Per cent recaptured: 28.6

Date of release 22 January 1964
 Lengths: (18-20 cm)

| Recapture number | Locality | Date of recapture | Days free release | Length (cm) at recapture | Returned by |
|------------------|--------------|-------------------|-------------------|--------------------------|-------------|
| 1 | Barwon River | 08.03.64 | 47 | 24.1 | A |
| 2 | " " | 13.03.64 | 52 | 19.0 | A |

Experiment No. VIC 046

Place of release: Lakes Entrance
 (32 km W)
 Number of fish released 50
 Per cent recaptured: 20.0

Date of release: 29 March 1964
 Lengths (24-37 cm)

| Recapture number | Locality | Date of recapture | Days free release | Length (cm) at recapture | Returned by |
|------------------|----------------|-------------------|-------------------|--------------------------|-------------|
| 1 | Lakes Entrance | * 25.04.64 | 27 | | P |
| 2 | Lakes Entrance | 09.05.64 | 41 | | P |
| 3-5 | " " (32 km W) | 25.05.64 | 57 | | P |
| 6 | " " (51 km E) | 31.05.64 | 63 | | P |
| 7 | " " | 29.12.64 | 275 | | P |
| 8 | " " | 17.01.65 | 294 | | P |
| 9-10 | " " | 18.01.65 | 295 | | P |

Experiment No. VIC 047

Place of release: Lakes Entrance
(22 km E)
Number of fish released: 150
Per cent recaptured: 34.7

Date of release: 14 April 1964
Lengths: [40-53 cm (95%); 54-58 cm (5%)]
Tag Type: Eastern (100%)
Subspecies:

| Recapture number | Locality | | Date of recapture | Days free | Length (cm) at release | Returned by |
|------------------|-----------------------|---|-------------------|-----------|------------------------|-------------|
| 1 | Lakes Entrance | * | 17.04.64 | 3 | | P |
| 2 | Corringle Beach | | 19.04.64 | 5 | 57.1 | A? |
| 3 | Marlo | | 23.04.64 | 9 | 55.9 | A |
| 4 | Lakes Entrance | | 03.05.64 | 19 | 53.3 | A |
| 5 | " " (32 km E) | | 08.05.64 | 24 | | P |
| 6-8 | " " " | | 10.05.64 | 26 | | P |
| 9-10 | Tamboon Inlet | | " " | " " | | P |
| 11-12 | NSW, Pambula | | 17.05.64 | 33 | | P |
| 13 | NSW, Eden | | 18.05.64 | 34 | | P |
| 14 | " " | | " " | " " | 48.0 | P |
| 15 | NSW, Pambula | * | 21.05.64 | 37 | | P |
| 16-19 | NSW, Eden | * | 23.05.64 | 39 | | P |
| 20 | NSW, Pambula | | 23.05.64 | " | | P |
| 21-22 | NSW, Pambula | | 24.05.64 | 40 | | P |
| 23 | NSW, Tathra | | 27.05.64 | 43 | | P |
| 24-25 | NSW, Eden | * | 01.06.64 | 48 | | P |
| 26 | Gabo Island | | 05.06.64 | 52 | 50.8 | P? |
| 27 | Tamboon Inlet | | 14.06.64 | 61 | 57.1 | A |
| 28 | NSW, Stony River | | 17.06.64 | 64 | | P |
| 29 | NSW, Iron Prince Reef | | 20.06.64 | 67 | | P |
| 30-37 | Lakes Entrance | | 26.06.64 | 73 | | P |
| 38-40 | Cape Conran | | 10.07.64 | 87 | | P |
| 41-43 | Lakes Entrance | * | 12.07.64 | 89 | | P |
| 44 | NSW, Wonboyn | | 15.08.64 | 123 | | P |
| 45 | Corringle Beach | | 24.08.64 | 132 | 54.6 | A |
| 46 | NSW, Eden | * | 31.12.64 | 261 | | P |
| 47-48 | NSW, Eden | | 01.01.65 | 262 | | P |
| 49 | NSW, Wonboyn | | 04.01.65 | 265 | | P |
| 50 | NSW, Kiah Beach | * | 10.02.65 | 302 | | P |
| 51 | NSW, Eden | | 05.06.65 | 417 | | P |
| 52 | NSW, Forster | | 04.07.65 | 446 | 57.1 | A |

Experiment No. VIC 048

Place of release: Oberon Bay
 Number of fish released 200
 Per cent recaptured: 4.5

Date of release: 19 April 1964
 Lengths: (36-53 cm)

| Recapture number | Locality | | Date of recapture | Days free | Length (cm) at release | Returned by |
|------------------|--------------------|---|-------------------|-----------|------------------------|-------------|
| 1 | Wilsons Promontory | * | 20.04.64 | 1 | 45.7 | P |
| 2-4 | Oberon Bay | | 21.04.64 | 2 | | P |
| 5 | Shallow Island | | 28.05.64 | 39 | 48.3 | P? |
| 6 | " " | | 09.06.64 | 51 | 51.4 | P? |
| 7 | Lakes Entrance | | 15.06.64 | 57 | | ? |
| 8 | " " | | 10.07.64 | 82 | | P |
| 9 | SA, Port Lincoln | | 10.12.66 | 965 | 66.0 | P |

Experiment No. VIC 049

Place of release: Tidal River
 Number of fish released: 100
 Per cent recaptured: 9.0

Date of release: 20 April 1964
 Lengths: [36 cm (2%); 38-51cm (97%);
 53 cm (1%)]
 Subspecies: Eastern (40%); Western (60%)

| Recapture number | Locality | | Date of recapture | Days free | Length (cm) at release | Returned by |
|------------------|---------------|---|-------------------|-----------|------------------------|-------------|
| 1 | Norman Bay | | 06.06.64 | 47 | 45.1 | A |
| 2 | Squeaky Bay | | 07.06.64 | 48 | | A |
| 3 | Waratah Bay | | 27.06.64 | 68 | 43.2 | A |
| 4 | " " | | 12.07.64 | 83 | 50.8 | A |
| 5 | " " | * | 15.08.64 | 117 | 47.0 | A |
| 6 | NSW, Eden | | 16.12.64 | 240 | | P |
| 7 | " " | * | 28.04.65 | 373 | | P |
| 8 | NSW, Nowra | * | 26.05.65 | 401 | | P |
| 9 | WA, Betty Bay | | 01.06.67 | 1137 | | A |

Experiment No. VIC 050

Place of release: Oberon Bay
 Number of fish released: 100
 Per cent recaptured: 12.0

Date of release 21 April 1964
 Lengths: [37-51 cm (99%) 53 cm (1%)]
 Subspecies: Eastern (33%); Western (67%)

| Recapture number | Locality | Date of recapture | Days free | Length (cm) at release | Returned by |
|------------------|-----------------------------|-------------------|-----------|------------------------|-------------|
| 1 | Lakes Entrance (64 km E) | 29.05.64 | 38 | 43.0 | P |
| 2 | Darby River | 17.06.64 | 57 | 44.4 | A |
| 3 | Waratah Bay | * 02.07.64 | 72 | 48.3 | A? |
| 4 | " " | 26.07.64 | 96 | 48.3 | A |
| 5 | Sealers Cove | 01.10.64 | 163 | 50.8 | A? |
| 6 | NSW, Eden | * 31.12.64 | 254 | | P |
| 7 | NSW, Logans Beach | 14.01.65 | 268 | | P |
| 8 | NSW, Eden | * 28.04.65 | 372 | | P |
| 9 | " " | 01.05.65 | 375 | | P |
| 10 | Waratah Bay | 06.10.65 | 533 | 59.7 | A |
| 11 | WA, Bremer Bay | 04.03.67 | 1097 | | P |
| 12 | WA, Hunts Canning Co | ?.?.68 | - | | P |

Experiment No. VIC 051

Place of release: Lakes Entrance
(32 km W)
Number of fish released: 200
Per cent recaptured: 28.5

Date of release: 25 May 1964
Lengths: [24 cm (1%); 27-39 cm (99%)]
Subspecies: Eastern (50%); Western (50%)

| Recapture number | Locality | Date of recapture | Days free release | Length (cm) at recapture | Returned by |
|------------------|-----------------------------|-------------------|-------------------|--------------------------|-------------|
| 1-2 | Lakes Entrance (64 km E) | 29.05.64 | 4 | | P |
| 3-4 | " " | " | " | 34.0 | P |
| 5-26 | " " (51 km E) | 31.05.64 | 6 | | P |
| 27-28 | Pearl Point | 26.06.64 | 32 | | P |
| 29 | NSW, Wonboyn | " | " | | P |
| 30 | Tamboon Inlet | * 27.06.64 | 33 | | P |
| 31 | McLaughans Inlet | 27.08.64 | 63 | 39.4 | A |
| 32 | Port Albert | 11.10.64 | 139 | 34.3 | A |
| 33 | Lakes Entrance | 25.10.64 | 153 | 32.7 | A |
| 34 | Golden Beach | 28.10.64 | 156 | 35.6 | A |
| 35 | Gippsland Lakes | 25.11.64 | 184 | | A |
| 36 | Pelican Island | * 30.11.64 | 189 | 41.9 | P? |
| 37 | Lakes Entrance | 24.12.64 | 213 | 40.6 | A |
| 38-40 | " " | 29.12.64 | 218 | | P |
| 41-43 | " " | 17.01.65 | 237 | | P |
| 44-45 | " " | 18.01.65 | 238 | | P |
| 46-47 | " " (18 km E) | 08.02.65 | 259 | | P |
| 48 | " " | " | " | | P |
| 49-51 | " " | 26.02.65 | 277 | | P |
| 52 | Point Ricardo | 27.02.65 | 278 | | P |
| 53 | Lakes Entrance | 19.04.65 | 329 | | P |
| 54 | " " | * 15.05.65 | 355 | 38.0 | P |
| 55 | NSW, Nowra | * 26.05.65 | 366 | | P |
| 56 | Lakes Entrance | 04.12.65 | 558 | | P |
| 57 | WA, Parrys Inlet | 09.03.69 | 1651 | | P |

Experiment No. VIC 052

Place of release: Lakes Entrance (64 km E) Date of release: 31 May 1964
 Lengths: (27-36 cm)
 Number of fish released: 50 Subspecies: Eastern (93%); Western (7%)
 Per cent recaptured: 22.0

| Recapture number | Locality | Date of recapture | Days free | Length (cm) at release | Recapture | Returned by |
|------------------|----------------|-------------------|-----------|------------------------|-----------|-------------|
| 1 | Tamboon Inlet | 21.09.64 | 113 | | 34.3 | A |
| 2 | Marlo | 28.12.64 | 211 | | 35.6 | A |
| 3 | Lakes Entrance | 29.12.64 | 212 | | | P |
| 4 | " " | " " | " " | | 31.7 | P |
| 5 | " " (18 km E) | 08.02.65 | 253 | | | P |
| 6 | " " | " " | " " | | | P |
| 7 | " " | 26.02.65 | 271 | | | P |
| 8 | Point Ricardo | 27.02.65 | 272 | | | P |
| 9 | Lakes Entrance | 19.04.65 | 323 | | | P |
| 10 | " " | 14.05.65 | 348 | | | P |
| 11 | " " | * 15.05.65 | 349 | | | P |

Experiment No. VIC 053

Place of release: Lakes Entrance (80 km E) Date of release: 26 June 1964
 Lengths: [30-37 cm (17%); 38-52 cm (83%)]
 Number of fish released: 100 Subspecies: Eastern (100%)
 Per cent recaptured: 18.0

| Recapture number | Locality | Date of recapture | Days free | Length (cm) at release | Recapture | Returned by |
|------------------|-------------------|-------------------|-----------|------------------------|-----------|-------------|
| 1-4 | Cape Conran | 10.07.64 | 14 | | | P |
| 5 | NSW, Disaster Bay | 21.07.64 | 25 | | 63.5 | P |
| 6 | NSW, Wonboyn | 11.08.64 | 46 | | 55.9 | P |
| 7 | Tamboon Inlet | 21.09.64 | 87 | | 48.3 | A |
| 8 | NSW, Wonboyn | 22.09.64 | 88 | | | P |
| 9 | Mallacoota | 10.10.64 | 106 | | 51.0 | A |
| 10 | Seaspray | 24.10.64 | 120 | | 48.3 | A |
| 11 | NSW, Wonboyn | 27.12.64 | 184 | | | P |
| 12 | NSW, Eden | 01.01.65 | 189 | | | P |
| 13 | " " | 16.01.65 | 204 | | | P |
| 14 | Lakes Entrance | 21.03.65 | 268 | | | P |
| 15 | NSW, Eden | * 28.04.65 | 306 | | | P |
| 16 | New South Wales | * 28.03.66 | 640 | | | P |
| 17 | " " " | * 20.06.66 | 724 | | | A |
| 18 | NSW, Woollongong | 31.12.67 | 1283 | | 68.6 | A |

CSIRO Marine Laboratories
comprise

Division of Oceanography
Division of Fisheries

Headquarters

Castray Esplanade, Hobart, Tasmania
GPO Box 1538, Hobart, Tas 7001, Australia

Queensland Laboratory

133 Middle Street, Cleveland, Qld
PO Box 120, Cleveland, Qld 4163

Western Australian Laboratory

Leach Street, Marmion, WA
PO Box 20, North Beach, WA 6020



CSIRO
AUSTRALIA

ISBN 0 643 04828 6.