

A Guide to Fish Marks

Third Edition

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A Guide to Fish Marks used by Members of the International Council for the Exploration of the Sea and by some Non-participant Countries

Third Edition

Instructions for Using the Guide

In the present revision the layout used in the second Guide, published in Vol. 19 (2), of this Journal has been retained, and similar instructions for using the Guide apply. An alphabetical list of the distinguishing letters (A, B, etc.) engraved on the fish marks is given on p. 90. The nationality of the institution issuing the mark and a reference to the appropriate page of the pamphlet is shown against each letter. Pages 98–160 comprise the body of the Guide; they are arranged according to nationality. Similar marks used by different institutions are described separately. In order to identify the source of a mark, the distinguishing letters should first be sought on p. 90, where a reference to the appropriate section of the pamphlet will be found. An illustration of the mark with all necessary details is given there on the same page. Within the countries the marks have been arranged as follows: (a) general nature – disc, hook, tag; (b) material – metal, celluloid, plastic, and (c) kind of fish – cod, herring, etc.

For convenience, the names and addresses of at least one institution which deals with marked fish in each country have been listed on p. 96, and the varieties of fish marked, with reference to the appropriate pages on which they are mentioned, are thus listed on p. 91. The names and addresses of firms manufacturing tags or components are given on pp. 93–95.

Species of Fish Marked, with references to the appropriate pages

Species	Page
Alewife (<i>Alosa pseudoharengus</i> (Wils.))	150
Amberjack (<i>Seriola</i> sp.)	152, 154, 155
American Plaice (<i>Hippoglossoides platessoides</i>)	100
Bluefin Tuna (<i>Thunnus thynnus</i>)	133, 144, 156
Blue Shark (<i>Carcharpius glaucus</i>)	105
Brackish water species (various)	136
Brill (<i>Rhombus laevis</i>)	109, 131
Brown Shrimp (<i>Crangon crangon</i>)	121
Capelin (<i>Mallotus villosus</i>)	134
Catfish (<i>Anarhicas lupus</i>)	122, 123
Char (<i>Salmo alpinus</i>)	112
Coalfish (<i>Gadus virens</i>)	115, 133
Cod (<i>Gadus morhua</i>)	99, 100, 107, 108, 109, 110, 112, 115, 122, 123, 125, 126, 133, 134, 136, 139, 140, 145, 148, 149, 150, 159, 160
Common Shrimp (<i>Crangon crangon</i>)	121
Crab (<i>Cancer pagurus</i>)	116, 135, 142, 143
Crawfish (<i>Palinurus vulgaris</i>)	129
Dab (<i>Limanda limanda</i>)	115
Demersal species (various)	101
Dogfish (<i>Squalus acanthias</i>)	128, 133, 140, 148, 150
Eel (<i>Anguilla anguilla</i>)	127, 129, 131, 146
Flatfish (<i>Pleuronectidae</i>)	128, 136
Flounder (<i>Pleuronectes flesus</i>)	108, 109, 131, 145
Fluke (<i>Paralichthus dentatus</i>)	148, 150
Freshwater species (various)	136, 137
Greater Weever (<i>Trachinus draco</i>)	109
Greenland Halibut (<i>Rheinhardtius hippoglossoides</i>)	108, 133
Greenland Shark (<i>Somniosus microcephalus</i>)	108
Grey Seal (<i>Halichoerus grypus</i>)	107, 134
Haddock (<i>Gadus aeglefinus</i>)	107, 115, 125, 126, 133, 139, 140, 148, 149, 150, 159
Hake (<i>Merluccius merluccius</i>)	115
Halibut (<i>Hippoglossus hippoglossus</i>)	99, 108, 115, 133, 134, 139, 141, 148, 149, 150
Harp Seal (<i>Phoca groenlandica</i>)	134
Herring (<i>Clupea harengus</i>)	102, 103, 109, 112, 115, 118, 119, 122, 123, 125, 131, 132, 133, 139, 141, 145, 151, 159, 160
Hood Seal (<i>Cystophora cristata</i>)	134
Horse Mackerel (<i>Trachurus trachurus</i>)	159, 160
Lobster (<i>Homarus vulgaris</i>)	106, 116, 129, 135, 142
Mackerel (<i>Scomber scombrus</i>)	109, 115, 117, 123, 131, 132, 133, 145, 159, 160
Mackerel Shark (<i>Lamna nasus</i>)	105

Species	Page
Marlin (<i>Tetrapterus</i> sp. & <i>Makaira</i> sp.)	152, 153, 154, 155
Norway Lobster (<i>Nephrops norvegicus</i>)	112, 143
Nursehound (<i>Scyllium catulus</i>)	115
Pike (<i>Esox lucius</i>)	112
Pike-perch (<i>Lucioperca sandra</i>)	131
Plaice (<i>Pleuronectes platessa</i>)	107, 108, 109, 110, 115, 125, 126, 128, 131, 133, 139, 145, 161
Pollack (<i>Gadus pollachius</i>)	107, 148, 150
Porbeagle (<i>Lamna nasus</i>)	133
Rays (<i>Raja</i> sp.)	115
Redfish (<i>Sebastes</i> sp.)	108, 148, 151
Ring Seal (<i>Phoca hispida</i>)	134
Sailfish (<i>Istiophorus</i> sp.)	152, 153, 154, 155
Salmon (<i>Salmo salar</i>)	101, 102, 104, 112, 113, 118, 120, 123, 124, 127, 129, 130, 134, 136, 137, 147, 160
Sandeel (<i>Ammodytes</i> sp.)	111
Scallop (<i>Pecten maximus</i>)	117
Scup (<i>Stenotomus versicolor</i>)	148, 150, 151
Sea Scallop (<i>Placopecten magellanicus</i>)	148
Sea Trout (<i>Salmo trutta</i>)	118, 123, 124, 127, 129, 130, 136, 137, 147
Shad (<i>Alosa sapidissima</i>)	158
Sole (<i>Solea solea</i> or <i>S. vulgaris</i>)	108, 109, 110, 115, 121, 131
Sprat (<i>Clupea sprattus</i>)	135, 146
Spurdog (<i>Squalus acanthias</i>)	115
Striped Bass (<i>Roccus lineatus</i> or <i>R. saxatilis</i>)	157
Swordfish (<i>Xiphias gladius</i>)	105, 152, 154, 155
Tope (<i>Galeus vulgaris</i>)	115
Trout (<i>Salmo trutta</i>)	105, 111, 112, 113, 120, 129
Tuna (<i>Thunnus</i> sp. & <i>Euthynnus</i> sp.)	138, 152, 153, 154, 155
Turbot (<i>Scophthalmus maximus</i>)	109, 131, 145
Whelk (<i>Buccinum undatum</i>)	116
Whiting (<i>Gadus merlangus</i>)	109, 110, 111, 115, 122, 123, 128, 131, 132, 139, 140, 145, 148, 150
Winter Flounder (<i>Pseudopleuronectes americanus</i>)	148
Witch (<i>Pleuronectes cynoglossus</i>)	107
Wolf-fish (<i>Anarhicas lupus</i>)	108, 159
Yellowtail Flounder (<i>Limanda ferruginea</i>)	148

Manufacturers of Marks

Canada

Monel Strap Tag

Markrite of Canada Inc., 648 Wellington Street, Montreal 3, P. Q.

Petersen Discs

Stanley Manufacturing Co., Ltd., 230 Bartley Drive, Toronto 16, Ontario.

Plastic Strip Tags

Same address as above.

Denmark

Alcathene Tags (red, green and light blue)

Nordisk Kamfabrik, Vordingborg.

Celluloid Tags (internal and external)

Simon E. Knudsen & Co. A/S, Bredgade 25X, Copenhagen.

Petersen Discs (black and white)

Messrs. Heimbürger, Købmagergade 63, Copenhagen.

England

Boat-shaped, Polythene Tags

E. Perkins & Co. Ltd., Selbourne Street, Walsall.

Crab Tags (yellow ivory disc)

Reliance (Nameplates) Ltd., Richmond Bridge Works, Twickenham.

Crab Tags (Gundersen, internal)

Industrial Art Work, Ltd., Main Street, Bramley, Rotherham.

Gill Tags (monel)

Ketchum Manufacturing Co., Walton-on-the-Hill, Tadworth, Surrey.

Petersen Discs (engraved or blank; yellow)

Messrs. Charles Neal & Sons, 378 High Road, East Finchley, London, N. 2.

Plastic Flags, Spaghetti Tags, Hydrostatic-magnetic and "*Flag*" *Tags*

Hellermann Electric, Ltd., Crawley, Sussex.

"*Prawn*" *Tags* (polythene disc)

Industrial Art Work, Ltd., Main Street, Bramley, Rotherham.

Stainless Steel Wire ("Staybright" quality 0-032" dia. 21 S.W.G.)

Temco Ltd., Lydbrook, Gloucestershire.

Surgical Needles (for attaching plastic flags and spaghetti tags)

A. W. Showell (Surgicraft) Ltd., Britten Street, Redditch, Worcester.

Titanium Wire (0-032" dia. 21 S.W.G.)

I.C.I. Ltd., Metal Division, P.O. Box 216, Kynoch Works, Witton, Birmingham 6.

Welvic Compound (BJC/82)

Chemicals Industry, Ltd., Plastics Division, Bessemer Road, Welwyn Garden City, Herts.

France

Jaw Tags

Sté. Présadom à Brive (Corrèze).

Germany

Firma Heinrich Rathjen, 2000 Hamburg-Stellingen, Brunckhorstweg,
Laboratorium Kiel, Kiel-Seefischmarkt.

Ireland

Plastic Arrow Suture Tag

Fine Art Plastics Ltd., 98 Middle Abbey Street, Dublin 1.

Norway

Alcathene Tags

Fiskeridirektoratets Havforskningsinstitutt, P.O. Box 2906, Bergen.

Disc Tags

A/S Protector, Chr. Michelsensgate 11, Bergen.

Internal Steel Tags and Plastic Tags

Bergen Nautik, Strandgate 18, Bergen.

Lea Hydrostatic Tags

Norsk Plastic Co. A/S, Øraveien 5, Østsiden Fredrikstad, P.O. Box 108.

Scotland

Bridles for Boat-shaped Tags

R. Whitelaw (Aberdeen) Ltd., Woolmanhill, Aberdeen.

Crab and Lobster Tags (oval copper disc)

Shirras Laing & Co. Ltd., Schoolhill, Aberdeen.

Plaice Tags (ebonite disc)

Nicol Smith & Co., 37 Belmont Street, Aberdeen.

White Braided Nylon Cord (2200/4 Group 6)

The Linen Thread Co., Ltd., 95 Bothwell Street, Glasgow C.2.

U. S. A.

Atkins Tags

Sillcocks-Miller Co., 10 West Parker Avenue, Maplewood, New Jersey.

Insul-Tab Company, Inc., 260 New Boston Street, Woburn,

Massachusetts 01802.

Dart and Capsule Tags

F. C. Phillips, Inc., Stoughton, Massachusetts.

Dart and Streamer Tags (with nylon darts)

Floy Tag & Mfg. Co., Inc., 2909 N.E. Blakeley St., Seattle 5, Washington.

Darts for Dart Tags (stainless steel)

F. C. Phillips, Inc., Stoughton, Massachusetts.

Internal Tags

Pilgrim Plastics Co., Inc., 278 Babcock Street, Boston 15, Massachusetts.

Messages for Dart and Capsule Tags

Pilgrim Plastics Co., Inc., 278 Babcock Street, Boston 15, Massachusetts.

Monel Chain

American Chain Company (Sweet Manufacturing Co.), Attleboro,
Massachusetts.

Monel Strap Tag

Salt Lake Stamp Co., 380 West 2nd South, Salt Lake City, Utah.

Nylon Darts

Floy Tag & Mfg. Co., Inc., 2909 N.E. Blakeley St., Seattle 5, Washington.

Petersen Discs

Same address as above.

Sillcocks-Miller Co., 10 West Parker Avenue, Maplewood, New Jersey.

Insul-Tab Company, Inc., 260 New Boston Street, Woburn,
Massachusetts 01802.

Plastic Strip Tags

Bastian Bros. Co., Rochester 1, New York.

Sillcocks-Miller Co., 10 West Parker Ave., Maplewood, N.J.

Spaghetti Tags (and unmarked vinyl tubing)

Insul-Tab Company, Inc., 260 New Boston Street, Woburn,
Massachusetts 01802.

Stainless Steel Pins and Wire

John Hassall, Inc., Westbury, Long Island, New York.

Strap Tags, Bands, etc.

National Band & Tag Co., Newport, Kentucky.

Streamers for Dart Tags

Floy Tag & Mfg. Co., Inc., 2909 N. E. Blakeley St., Seattle 5, Washington.

Insul-Tab Company, Inc., 260 New Boston Street, Woburn,
Massachusetts 01802.

Swordfish Tags (Vinyl tubing with dart in the end)

Floy Tag & Mfg. Co., Inc., 2909 N. E. Blakeley St., Seattle 5, Washington.

**The Principal Offices
for receiving particulars of marked fish, including foreign-marked**

Belgium	Directeur, Institut d'Etudes Maritimes, Ostende.
Canada	Fisheries Research Board of Canada, Biological Station, St. Andrews, N.B. Fisheries Research Board of Canada, Biological Station, St. John's, Newfoundland. Station de Biologie marine, Cap-aux-Meules, Ile de la Madeleine, Québec. Centre Biologique, Département des Pêcheries, Hôtel du Gouvernement, Québec.
Denmark	Danmarks Fiskeri- og Havundersøgelser, Charlottenlund Slot, Charlottenlund. Grønlands Fiskeriundersøgelser, Jægersborg Allé 1 B, Charlottenlund.
England	The Director, Fisheries Laboratory, Lowestoft, Suffolk. Fisheries Experiment Station, Conway, Caernavonshire, Wales. Fisheries Laboratory, Burnham-on-Crouch, Essex. The Director, The Laboratory, Citadel Hill, Plymouth. The Director, Marine Biological Station, Port Erin, Isle of Man.
Finland	Kalatutkimus, Helsinki. Institute of Marine Research, Helsinki 4.
France	Directeur, Institut Scientifique et Technique des Pêches Maritimes, 59 avenue Raymond-Poincaré, Paris, 16 ^{eme} . Station d'Hydrobiologie Appliquée, Centre Scientifique, B.P. 28, Biarritz.
Germany	Biologische Anstalt Helgoland and Bundesforschungsanstalt für Fischerei, Hamburg-Altona 1, Palmaille 9.
Iceland	Fiskideild, Skúlagata 4, Reykjavík.
Ireland	Department of Agriculture and Fisheries, Fisheries Division, Dublin 1. Salmon Research Trust of Ireland, Inc., Furnace, Newport, Co. Mayo. Foyle Fisheries Commission, 8 Victoria Road, Londonderry.
Netherlands	Fisheries Laboratory, Haringkade 1, IJmuiden.
Norway	Fiskeridirektoratets Havforskningsinstitut, Postboks 2906, Bergen.
Poland	Morski Instytut Rybacki, Aleja Zjednoczenia, Gdynia. Rybacka Stacja Doswiadczalna Wyzszej Szkoły Rolniczej, Mydlniki. Polski Związek Wędkarski, Warszawa, ul. Krajowej Rady Narodowej 42.
Portugal	Instituto de Biologia Marítima, Cais do Sodré, Lisboa.

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- Scotland The Director, Marine Laboratory, Department of Agriculture and Fisheries for Scotland, P.O. Box 101, Victoria Road, Torry, Aberdeen.
- Spain Laboratorio de Investigaciones Pesqueras, Cadiz.
- Sweden Havsfiskelaboratoriet, Lysekil.
Kungl. Fiskeristyrelsen, Fack, Göteborg 5.
Sötvattenslaboratoriet, Drottningholm.
- U.S.A. U.S. Bureau of Commercial Fisheries, Woods Hole, Massachusetts.
U.S. Fish and Wildlife Service, Bureau of Commercial Fisheries Biological Laboratory, Boothbay Harbor, Maine.
Woods Hole Oceanographic Institution, Woods Hole, Mass. 02543.
Office of Statistical Services, U.S. Bureau of Commercial Fisheries, Gloucester, Mass., and Branch Offices.
Inter-American Tropical Tuna Commission, Puerto Rico Office, P. O. Box 3712, Marina Post Office, Mayaguez, Puerto Rico 00790.
U.S. Bureau of Commercial Fisheries Biological Laboratory, Beaufort, North Carolina.
- U.S.S.R. VNIRO, V. Krasnoselskaya 17, Moscow B-140.
PINRO, Kolskaya 6, Murmansk.
ATLANTNIRO, Dmitrij Donskoy 5, Kaliningrad Reg.
BALTNIIRKH, Estonian Department, Apteegi 1-2, Tallin.
-

Fish Marks in Use in Different Countries

BELGIUM

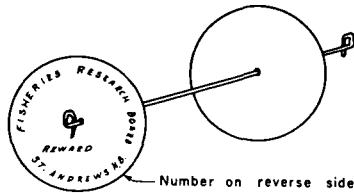
<i>Marking Institution</i>	Institut d'Etudes Maritimes, Zeewezengebouw, Ostende.	
<i>Type</i>	Lea Hydrostatic tag for Herring . Albrechtsen tag for Sole .	
<i>Scale of Reward</i>	For herring	70 Fr. b.
	For sole	35 Fr. b.
<i>Reception Offices</i>	Director, Institut d'Etudes Maritimes, Ostende. Advisor, Service de la Pêche Maritime, Ostende. Any fishery laboratory in the ICES member countries.	

CANADA

Marking Institution Fisheries Research Board of Canada.

Type Bright red and yellow celluloid discs attached by stainless wire; stamped "Fisheries Research Board, St. Andrews, N.B., Reward" and stamped on the back with a number only. Diameter 18 mm.

Figure



Use

Halibut.

Tags attached by stainless steel wire through nape. The red disc placed on the white side of the halibut and the yellow disc on the dark side.

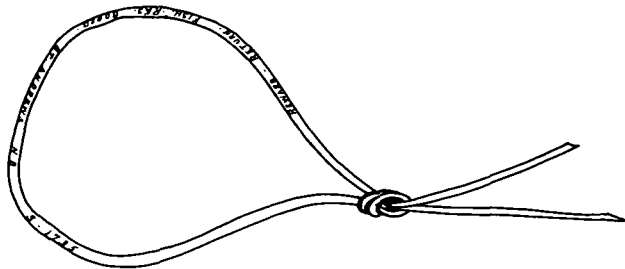
Scale of Reward For tags and information 1.00 C. dollar.

Reception Office Fisheries Research Board of Canada, St. Andrews, N.B.

Marking Institution Fisheries Research Board of Canada.

Type Spaghetti tag, yellow vinyl tubing stamped "Reward-Return Fish. Res. Board, St. Andrews, N.B., S-(number)". 30 mm × 2 mm.

Figure



Use

Cod.

Tag attached to dorsal musculature below dorsal fin.

Scale of Reward For tag and information 1.00 C. dollar.

Reception Office Fisheries Research Board of Canada, St. Andrews, N.B.

CANADA

Marking Institution Fisheries Research Board of Canada.
Type Yellow and white Petersen discs. Diameter 13 and 10 mm.

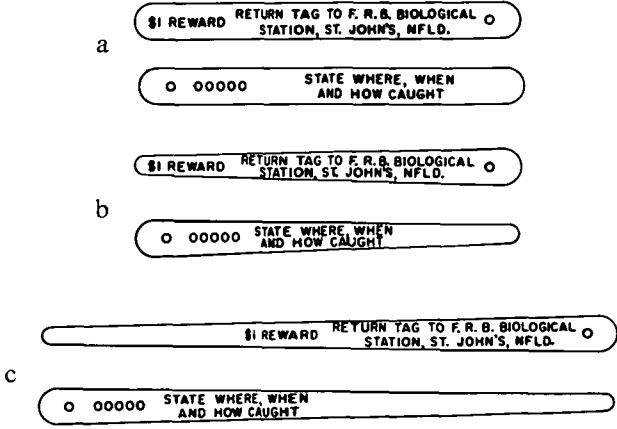
Figure



Use **Cod, American Plaice.**
 Tags attached externally by stainless steel wire.
Scale of Reward For tag and information 1.00 C. dollar.
Reception Office Fisheries Research Board of Canada, Biological Station, St. John's, Nfld.

Marking Institution Fisheries Research Board of Canada.
Type Laminated plastic strips (ends rounded) 50 mm long × 10 mm wide, yellow and orange.
 (a) 50 mm long × 5 mm wide, yellow.
 (b) 50 mm long × 5 mm wide at one end, tapered to 2 mm at other end, yellow.
 (c) 75 mm long × 5 mm wide at one end, tapered to 2 mm at other end, yellow.

Figure



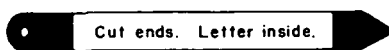
Use **Cod.**
 Tags attached externally by stainless steel wire.
Scale of Reward For tag and information 1.00 C. dollar.
Reception Office Fisheries Research Board of Canada, Biological Station, St. John's, Nfld.

CANADA

Marking Institution Department of Game and Fisheries, Province of Quebec.

Type Lea Hydrostatic.

Figure



Cut ends, letter inside.
Coupez bouts, 2328.
lettre dedans.
Reward. Récompense.

Fishermen - your help is needed.

This fish has been tagged to study its migrations. We beg you to send this message slip to: Station de Biologie Marine, Grande-Rivière, Gaspé, Qué., Canada.

Give your name and address, place and date of capture, gear used. REWARD \$ 1.00 — thank you.

Pêcheurs - nous demandons votre collaboration.

Ce poisson a été étiqueté en vue de connaître ses migrations. Nous vous prions de retourner ce message à: Station de Biologie Marine, Grande-Rivière, Gaspé, Qué., Canada.

S. V. P. indiquer votre nom et adresse, lieu et date de capture, agrès de pêche utilisé. RECOMPENSE — \$ 1.00. Merci.

Use

Demersal Species.

Tag attached by stainless steel wire.

Scale of Reward

For tag and information 1.00 C. dollar.
(An additional dollar is paid if the fish is delivered with the tag).

Reception Office

Station de Biologie marine, Grande-Rivière, Gaspé, Québec.

Marking Institution Department of Game and Fisheries, Province of Quebec.

Type Swedish-type tag, small vinylite plate.

Figure



Use

Salmon (smolts).

Tag attached by two stainless steel wires passed through the flesh in front of the dorsal fin, with two hypodermic needles, and twisted together on other side.

Scale of Reward

For tag and information 1.00 C. dollar.

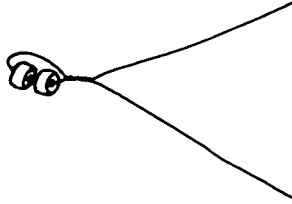
Reception Office

Station de Biologie marine, Grande-Rivière, Gaspé, Québec.

CANADA

Marking Institution Department of Game and Fisheries, Province of Quebec.
Type Coloured porcelain beads (2 mm) on a fine silver wire.

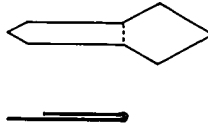
Figure



Use **Salmon** (smolts).
 Attached at front of dorsal fin, through musculature.
Scale of Reward For tag and information 1.00 C. dollar.
Reception Office Wildlife Management Service, Gaspé Fish Hatchery,
 Gaspé, Québec.

Marking Institution Fisheries Research Board of Canada.
Type Scarlet celluloid tag; different patterns for different tagging locations. Tag measures 25 mm.

Figure



Use **Herring.**
 Attached to operculum.
Scale of Reward For tag and information 1.00 C. dollar.
Reception Office Fisheries Research Board of Canada, St. Andrews, N.B.

CANADA

Marking Institution Fisheries Research Board of Canada.

Type Scarlet celluloid disc attached by nylon-covered elastic thread.
Numbered, 10 mm.

Figure



Use **Herring.**
Attached through back ahead of dorsal fin.

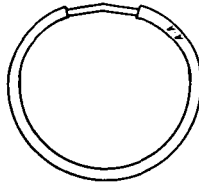
Scale of Reward For tag and information 1.00 C. dollar.

Reception Office Fisheries Research Board of Canada, St. Andrews, N.B.

Marking Institution Fisheries Research Board of Canada.

Type Spaghetti tag (loop of vinyl tubing secured with nylon end plug). 82 × 2 mm.

Figure



Use **Herring.**
Attached through back ahead of dorsal fin.

Scale of Reward For tag and information 1.00 C. dollar.

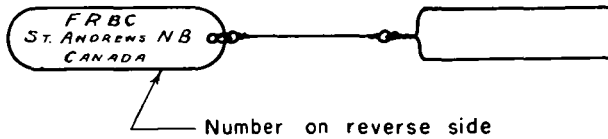
Reception Office Fisheries Research Board of Canada, St. Andrews, N.B.

CANADA

Marking Institution Fisheries Research Board of Canada.

Type Laminated plastic strip of various colours attached by stainless steel wire; stamped "F.R.B.C., St. Andrews, N.B., Canada". 10 × 5 mm.

Figure



Use **Salmon** (smolts).
Tag attached by Carlin method with stainless wire through back below origin of dorsal fin.

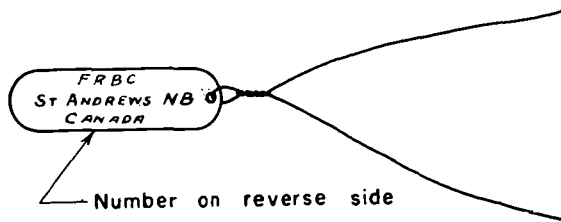
Scale of Reward For tag and information 1.00 C. dollar.

Reception office Fisheries Research Board of Canada, St. Andrews, N.B.

Marking Institution Fisheries Research Board of Canada.

Type Laminated plastic strip of various colours attached by stainless steel wire; stamped "F.R.B.C., St. Andrews, N.B., Canada". With a number on the back. 16 × 5 mm.

Figure



Use **Salmon** (adults).
Tag attached with stainless wire through back below origin of dorsal fin (one wire only through fish).

Scale of Reward For tag and information 1.00 C. dollar.

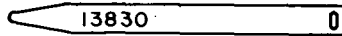
Reception Office Fisheries Research Board of Canada, St. Andrews, N.B.

CANADA

Marking Institution Fisheries Research Board of Canada.

Type Monel strap tags.
 (1) Large (No. 2) tag (36 × 3 mm).
 (2) Small fingerling tag (21 × 2 mm).
 Both stamped with a number only.

Figure



Use **Trout,**
 at Ellerslie Brook, Prince Edward Island. Tag is bent into circular form and applied around lower jaw at side.

Scale of Reward For tag 10 C. cents.

Reception Office Fisheries Research Board of Canada, St. Andrews, N.B.

Marking Institution Fisheries Research Board of Canada.

Type Branding stamp (FRB (32 × 89 mm) and number (32 mm high)).

Figure



Use **Swordfish, Mackerel Shark and Blue Shark.**
 Held in flesh by a barb.

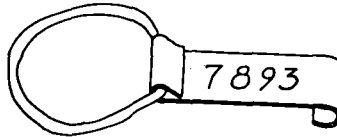
Scale of Reward For tag and information 10.00 C. dollars.

Reception Office Fisheries Research Board of Canada, St. Andrews, N.B.

CANADA

Marking Institution Fisheries Research Board of Canada.
Type Monel stamped with a number (32 × 6 mm).

Figure

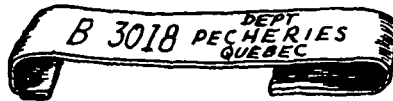


Use **Lobster.**
 One end is hooked over the posterior margin of the carapace; the other end is bent back to hold a rubber band which is passed around the rostrum. The tags are lost on moulting.

Scale of Reward For tag 50 C. cents.
Reception Office Fisheries Research Board of Canada, St. Andrews, N.B.

Marking Institution Department of Game and Fisheries, Province of Quebec.
Type Monel strip hooked at both ends, 7 mm wide × 1 mm thick.

Figure



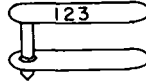
Use **Lobster.**
 Over cephalothorax (as above).

Scale of Reward For tag and information 1.00 C. dollar.
Reception Offices (1) Station de Biologie marine, Grande-Rivière, Gaspé, Québec.
 (2) Laboratoire de Biologie marine, Cap-aux-Meules, Iles de la Madeleine, Québec.

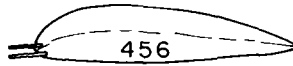
CANADA

Marking Institution Fisheries Research Board of Canada.

Type White and red plastic sheep ear tag. Red plastic "carrot" – as used in Great Britain – number on one side and "Inform London Zoo" on other.



Figure



Use **Grey Seal (horsehead, tête de cheval).** Tags attached to tail.

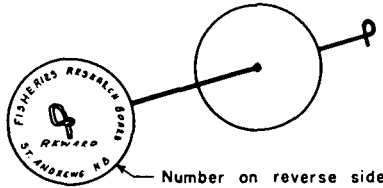
Scale of Reward For tag and information 2.00 C. dollars.

Reception Office Fisheries Research Board of Canada, Arctic Unit, 505 Pine Ave. W., Montreal 18, Quebec.

Marking Institution Fisheries Research Board of Canada.

Type Bright yellow celluloid discs attached by stainless wire; stamped "Fisheries Research Board, St. Andrews, N.B., Reward" and stamped on the back with a number only. Diameter 14 mm.

Figure



Use **Cod, Haddock, Pollack, Plaice and Witch.**

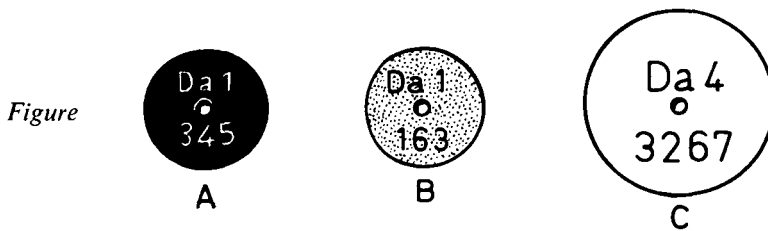
Tags attached by stainless steel wire through flesh below dorsal fin.

Scale of Reward For tags and information 1.00 C. dollar.

Reception Office Fisheries Research Board of Canada, St. Andrews, N.B.

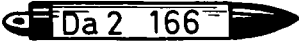
DENMARK


- Marking Institution** Danmarks Fiskeri- og Havundersøgelser, Charlottenlund Slot, Charlottenlund.
Grønlands Fiskeriundersøgelser, Jægersborg Allé 1B, Charlottenlund.
- Type** Petersen discs. Two discs attached by silver wire, titanium wire or stainless steel wire. One disc with engraved letters and numbers.
- (A) Black ebonite disc with white numbers. Diameter 16 mm.
- (B) Yellow plastic disc with black numbers. Diameter 16 mm.
- (C) White plastic disc with black numbers. Diameter 25 mm.
- Identification system: Da 1 and number used in Baltic-Belt Seas and Kattegat-Skagerak area; Da 2 and number used in the North Sea; Da 3 and number used in Faroe waters, and Da 4 and number used in Greenland waters.



- Use** **Cod, Plaice, Sole, Flounder** and other species of flatfish. Types A and B in Danish waters.
Cod, Redfish, Wolf-fish, Halibut, Greenland Halibut, Greenland Shark.
Types A and C in Greenland waters.
The discs are attached by means of the wire going through the gill cover or the flesh between the interradii of the dorsal fin.
- Scale of Reward** For each recaptured fish with full information: 5·00 D. kr.
- Reception Office** Danmarks Fiskeri- og Havundersøgelser, Charlottenlund Slot, Charlottenlund.
Grønlands Fiskeriundersøgelser, Jægersborg Allé 1B, Charlottenlund.

DENMARK

<i>Marking Institution</i>	Danmarks Fiskeri- og Havundersøgelser, Charlottenlund Slot, Charlottenlund. Grønlands Fiskeriundersøgelser, Jægersborg Allé 1B, Charlottenlund.
<i>Type</i>	Lea Hydrostatic tag. Plastic tube, yellow with blue ends. Rolled-up paper inside giving complete instruction to the finder. Tag attached with a stainless steel wire or a braided nylon thread.
<i>Figure</i>	
<i>Use</i>	Cod, Greater Weever, Herring, Mackerel, Whiting. Danish waters. Cod, Coalfish. Faroe waters. Cod, Greenland Halibut, Salmon, Char, Herring. Greenland waters. Tag attached in front of the dorsal fin.
<i>Scale of Reward</i>	For each fish with full information 5·00 D. kr. For herring and whiting in Danish waters . . . 10·00 D. kr.
<i>Reception Office</i>	Same as Marking Institution.

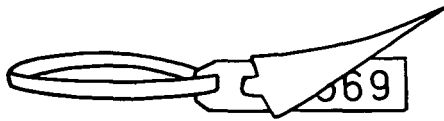
<i>Marking Institution</i>	Danmarks Fiskeri- og Havundersøgelser, Charlottenlund Slot, Charlottenlund.
<i>Type</i>	Roll-and-anchor tag. A rolled-up white plastic tape, 165 × 22 mm, giving complete instruction to the finder. Attached by a plastic disc (25 × 4 mm), a 37 mm long nylon loop and a blue locking bead.
<i>Figure</i>	
<i>Use</i>	Plaice, Sole, Flounder, Turbot and Brill. Danish waters. Tag attached to the eye side of the fish, being anchored to the disc which is placed in the lymphatic duct at the dorsal part of the blind side.
<i>Scale of Reward</i>	Fish with full information 5·00 D. kr.
<i>Reception Office</i>	Same as Marking Institution.

DENMARK

Marking Institution Danmarks Fiskeri- og Havundersøgelser, Charlottenlund Slot, Charlottenlund.

Type Arrow tag. A red or yellow arrow-shaped plastic tape, 11 cm long and 0.15 mm thick. Stamped Da-1, Da-2, etc.

Figure



Use **Sole and Plaice.**
Danish waters. Attached to the gill cover or looped through part of the flesh on the eye side of the fish or right through the body just inside the fin rays near the tail.

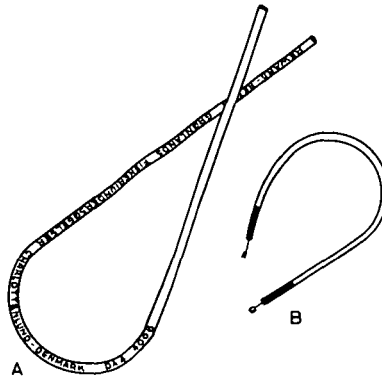
Scale of Reward Fish with full information 5.00 D. kr.

Reception Office Same as Marking Institution.

Marking Institution Danmarks Fiskeri- og Havundersøgelser, Charlottenlund Slot, Charlottenlund.
Grønlands Fiskeriundersøgelser, Jægersborg Allé 1B, Charlottenlund.

Type Spaghetti tag.
(A) Yellow vinyl tube, length about 30 cm, diameter 0.25 cm. Instruction to the finder printed on the tube.
(B) Yellow vinyl tube with internal wire of stainless steel, length about 8 cm, diameter 0.15 cm.

Figure



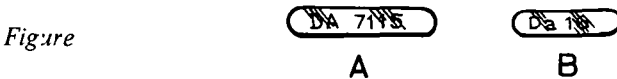
Use **Cod.**
Greenland waters, type A.
Whiting.
Danish waters, type B.
Passed through the musculature in front of the first dorsal fin and closed by the ends of the stainless steel wire (B), or tied with a knot above the fish (A).

DENMARK

<i>Scale of Reward</i>	Fish with full information Cod 5·00 D. kr. Whiting 10·00 D. kr.
<i>Reception Office</i>	Same as Marking Institution.

Marking Institution Danmarks Fiskeri- og Havundersøgelser, Charlottenlund Slot, Charlottenlund.

Type Internal tag made of stainless steel or nickel-plated iron.
(A) $20 \times 4 \times 1$ mm. Stamped DA and a number.
(B) $14 \times 3 \times 0.4$ mm. Stamped Da and a number, usually denoting a series of 50 tags.



Use **Whiting and Sandeel.**
Placed in the abdominal cavity of the fish.

Scale of Reward Fish with full information 10·00 D. kr.
Reception Office Same as Marking Institution.

Marking Institution Danmarks Fiskeri- og Havundersøgelser, Charlottenlund Slot, Charlottenlund.

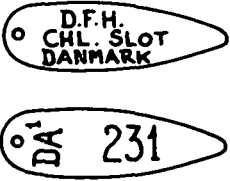
Type Internal tag of red or green celluloid, $14 \times 4 \times 0.5$ mm. Stamped DA and a number.

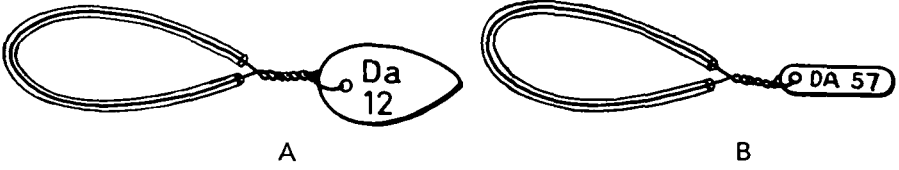


Use **Trout.**
Fresh and salt water, attached in the left-side musculature close to the dorsal fin. Furthermore the fish is marked by removal of one of the ventral fins and sometimes also the adipose fin.

Scale of Reward For each recaptured fish and full information: 5·00 D. kr.
Reception Office Same as Marking Institution.

DENMARK

<i>Marking Institution</i>	Danmarks Fiskeri- og Havundersøgelser, Charlottenlund Slot, Charlottenlund. Grønlands Fiskeriundersøgelser, Jægersborg Allé 1B, Charlottenlund.
<i>Type</i>	Alcathene tag. A green, red or light blue boat-shaped plate of alcathene attached by nylon thread (preferably spun) or a fine stainless steel wire. Stamped DA ¹ and a number.
<i>Figure</i>	
<i>Use</i>	Norway Lobster and Cod. Danish waters. Salmon, Herring, Char and Young Cod (Da-4). Greenland waters.
<i>Scale of Reward</i>	For each recaptured fish or lobster with full information 5:00 D. kr.
<i>Reception Office</i>	Same as Marking Institution.

<i>Marking Institution</i>	Danmarks Fiskeri- og Havundersøgelser, Charlottenlund Slot, Charlottenlund.
<i>Type</i>	Celluloid tags attached by stainless steel wire, covered with polyethylen tubing. (A) A red droplet-shaped tag stamped Da and a number. (B) Red or green tag, stamped DA and a number.
<i>Figure</i>	
<i>Use</i>	Trout and Pike. Danish fresh and salt waters. Attached through the dorsal musculature.
<i>Scale of Reward</i>	For each recaptured fish with full information: 5:00 D. kr.
<i>Reception Office</i>	Same as Marking Institution.

DENMARK

Type Red celluloid tag, $14 \times 4 \times 0.5$ mm. Stamped DA and a number. The tag is fastened to a small loop of stainless steel wire, which is fastened to another loop with double stainless steel wires.

Figure



Use

Young Salmon and Trout.

Danish waters. The two free ends of the wire are passed through the fish from the same side just below the dorsal fin, and are then twisted together on the opposite side.

Scale of Reward

For fish and full information 5.00 D. kr.

Reception Office

Same as Marking Institution.

ENGLAND

Marking Institution Ministry of Agriculture, Fisheries and Food, London.

Type

- (a) Standard tags. Two 16 mm or 14 mm diameter black ebonite or yellow or red rigid PVC plastic discs. Attached by stainless steel or titanium wire. Inscribed discs stamped E plus a second letter, with serial number below (Fig. 1).
- (b) Lea Hydrostatic tag. Attached through back muscle of fish by either monofilament nylon, nylon wool or braided nylon twine. Discontinued 1958.
- (c) Plastic flag. Yellow coloured PVC, dimensions $52 \times 12.5 \times 0.38$ mm or $42 \times 9 \times 0.30$ mm. Printed with letter E plus a second letter and serially numbered, bears instruction in English on one side and in either Norwegian or French on the other (Fig. 2).
An orange coloured form of the tag incorporates an anti-fouling compound.
Attached through the back muscle of fish by either soft white braided nylon twine, monofilament nylon or by stainless steel bridle.
- (d) Spaghetti tag. Yellow coloured PVC tubing; dimensions 25.5 cm long \times 2.5 mm outside diameter; or 18 cm long \times 1.5 mm outside diameter. Each tag bears a printed message and either the letter E and a serial number or E plus a second letter and a serial number. Attached through the back muscle of fish and the two ends knotted together.
- (e) Plastic arrow tag. Arrow-shaped tag 11 cm long, made from red or yellow PVC sheet 0.25 mm thick. Printed with letter E and serial number but no message. The tag is looped into the flesh of the fish with a needle, making two skin punctures approximately 1 cm apart; the head of the arrow is turned back and anchored through two holes in the tail of the arrow. The tag is also looped right through the edge of the body of some flatfish.
- (f) Two 12.5 mm diameter discs similar to discs described in (a) above, attached with a slightly thinner wire.
- (g) Hydrostatic-magnetic. This is similar to (b) above, but has a steel spring fitted inside it for recovery in fish-meal plants. Both of these tags are fitted to the back of the fish by either a wire bridle or a nylon loop.

ENGLAND

Figures



Figure 1.

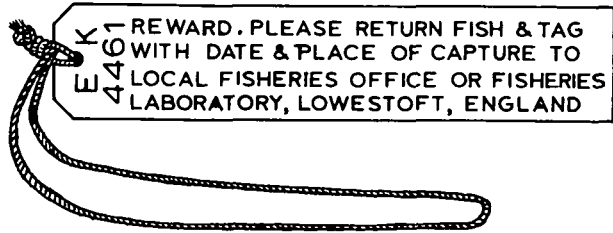


Figure 2.

Use

- (a) Plaice, Sole, Dab, Halibut, Spurdog, Ray, Tope, Cod, Coalfish.
- (b) Cod, Whiting, Haddock, Herring, Mackerel.
- (c) Cod, Whiting, Haddock, Coalfish, Hake, Spurdog, Nursehound, Plaice.
- (d) Cod, Whiting.
- (e) Sole.
- (f) Whiting, Small Soles.
- (g) Herring, Mackerel.

Scale of Reward

For fish and tag or tag alone, all species except herring and mackerel 5 sh.
 Except when a double tagged fish with both tags is returned 10 sh.
 Herring and mackerel 10 sh.
 The market value of the fish is refunded if claimed. Postage is refunded. Liberation information is supplied to the finder if requested.

Reception Office

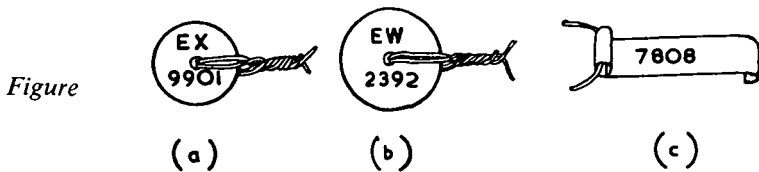
Director, Fisheries Laboratory, Lowestoft, Suffolk, or the Ministry's local Fishery Officer or Collector.

Marking Institution Ministry of Agriculture, Fisheries and Food, London.

Type

- (a) Plastic disc 12.5 mm diameter, black and coloured, attached by stainless steel wire twisted round the base of a claw (cheliped). Disc stamped E plus a second letter with serial number below.
- (b) As (a) but 15 mm diameter.
- (c) Monel strip, 32 × 6 mm, stamped with a serial number only and bent in an S-like shape. One end of the S is hooked under the posterior end of the carapace and the tag is held in place by a loop of stainless steel wire through the other end of the S and taken under the rostrum.
- (d) A circular hole approximately 5 mm diameter punched in one or more segments of the uropod and/or telson.

ENGLAND



Use Lobster.

Scale of Reward (a), (b), (c). For tag and recapture data 2 sh. 6 d.
 For tag only 2 sh.
 Finder is informed of date and place of liberation.
 (d) For lobster. Market value of lobster, refund of postage and reward 3 sh.
 Increased rewards are used in special circumstances. Finder is informed of date of release and any increase in size.

Reception Office Fisheries Experiment Station, Conway, Caernavonshire, Wales, or local agents.

Marking Institution Ministry of Agriculture, Fisheries and Food, London.

Type Yellow circular paper labels 5 mm diameter with pencilled number. Painted in various single colours, or combinations of two colours.

Use **Whelk.**
 The mark is attached by transparent adhesive to the upper side of the spire. Each spire is cleaned and painted.

Scale of Reward For each painted shell (with or without label) containing a live whelk or hermit crab, or each empty painted shell, with information on position, date and method of capture 3d.

Reception Office Fisheries Laboratory, Burnham-on-Crouch, Essex, or Mr. H. ROWDEN, the Harbour, Whitstable, Kent.

Marking Institution Ministry of Agriculture, Fisheries and Food, London.

Type (a) Yellow plastic disc 12.5 mm diameter attached by stainless steel wire to the base of a claw (cheliped). Disc stamped E plus a second letter with a serial number below.
 (b) Disc as at (a) but green, attached to the side of the crab by a stainless steel wire passing through two holes in the shell.



Use Crab.

ENGLAND

Scale of Reward For yellow tag with information on date and position of capture 2 sh.
For green tag plus crab 3 sh.
Finder is informed of date and position of release and increase in size.

Reception Office The Ministry's local Fishery Office or Collector or Fisheries Laboratory, Burnham-on-Crouch, Essex.

Marking Institution Marine Biological Association of the United Kingdom.

Type Lea Hydrostatic tag.

Use **Mackerel.**

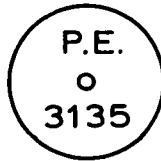
Scale of Reward For fish and tag, or tag alone 10 sh.
Postage is refunded, liberation details are required.

Reception Office The Director, The Laboratory, Citadel Hill, Plymouth.

Marking Institution Marine Biological Station, Port Erin, Isle of Man.

Type Black circular plastic discs, 16 mm diameter, with central hole. Stamped P.E. and a number.

Figure



Use **Scallop.**

The tag is attached by silver wire inserted through hole drilled through ear of hinge.

Scale of Reward For each shell with tag attached and recapture data 1 sh. 6 d.
Market value of the scallop may be claimed. Information on date and place of capture supplied to finder.

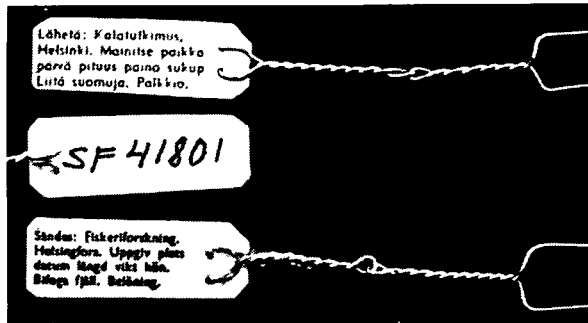
Reception Office Director, Marine Biological Station, Port Erin, Isle of Man, U.K.

FINLAND

Marking Institution Bureau of Fisheries Investigations, Helsinki.

Type Celluloid-coated cardboard, with text printed on one side and the letters SF and a number on the other side. A loop of stainless steel wire is fastened to the mark; this is looped with doubled stainless steel wires. One type bears the Finnish text and the other the Swedish text.

Figure



Use Young **Salmon and Sea Trout.**

The two free ends of the wire are passed through the fish from the same side just below the dorsal fin and are twisted together on the opposite side. The tag thus moves freely on one side of the base of the dorsal fin.

Scale of Reward 3 mk.

Reception Office Kalatutkimus, Helsinki.

Marking Institution Institute of Marine Research, Helsinki 4.

Type (a) Lea Hydrostatic tag.
(b) Gundersen yellow plastic sprat tag.
Both stamped SF and a number.

Figure



Use **Baltic Herring.**

Scale of Reward 3 mk.

Reception Office Institute of Marine Research, Helsinki 4.

FRANCE

Marking Institution Institut Scientifique et Technique des Pêches Maritimes, 59 avenue Raymond Poincaré, Paris, 16ème.

Type (a) "Spaghetti": tube plastique transparent souple de 2 mm de diamètre et 38 cm de long renfermant un cylindre en plastique jaune de 10 cm portant une inscription d'origine et un numéro. (Fig. 1).
 (b) "Etiquette": rectangle de plastique souple de couleur jaune de 4 cm de long sur 1 cm de large. (Fig. 2).

Figure

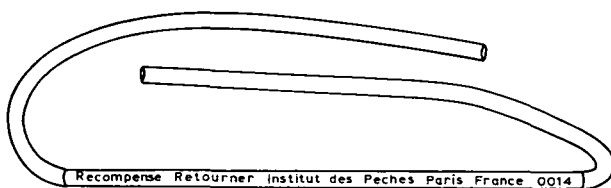


Figure 1.

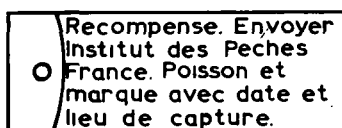
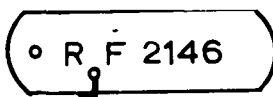


Figure 2.

Use Poissons divers.

Type "Plaquette": plastique rigide de 3 cm de long sur 1 cm de large de couleur rouge, jaune ou noire, avec encoche destinée à la fixation de l'attache.

Figure



Use Hareng et poissons divers.

Scale of Reward Pour tous poissons 5 Fr.
 Pour un thon 15 Fr.

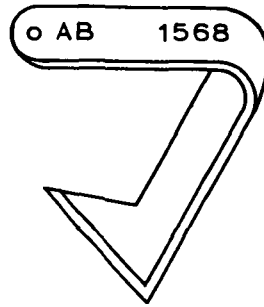
Reception Office Directeur, Institut Scientifique et Technique des Pêches Maritimes, 59 avenue Raymond Poincaré, Paris, 16ème.

FRANCE

Marking Institution Stations d'Hydrobiologie Appliquée de Paris, du Paraclet, de Thonon et de Biarritz.
Service de la Pêche de la Direction Générale des Eaux et Forêts. Associations de Pêche et de Pisciculture et leurs Fédérations Départementales.

Types Marque de mâchoire; marque hydrostatique de Lea; marque de Carlin.

Figure



Les 2 lettres et 4 chiffres figurant sur la marque permettent, sur le plan national, une identification de tous les organismes marqueurs grâce à la coordination préalable des lettres imposées aux fabricants et aux utilisateurs.

Use Principalement **Truite** et **Smolts de Saumon**.

Scale of Reward Pour chaque capture avec information complète ... 2 à 10 Fr.

Reception Office Station d'Hydrobiologie Appliquée, Centre Scientifique, B.P. 28, Biarritz.

GERMANY

Marking Institution Biologische Anstalt Helgoland, Hamburg-Altona 1, Palmaille 9.

Type Two circular coloured plastic discs, diameter 16 mm, with central perforation, attached by a wire – Petersen discs. The upper one is a yellow disc stamped with the letters BAH and a number and the lower disc is red without letters and numbers.

Figure



Use Sole in the North Sea.

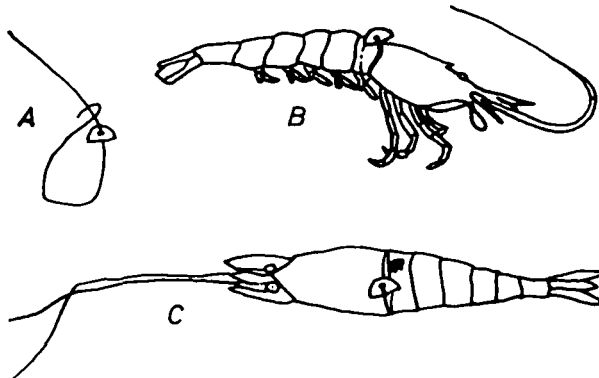
Scale of Reward The whole fish with tag and information as to place and date of capture and gear used 6.- DM.
Tag alone with the above information 6.- DM.

Reception Office Biologische Anstalt Helgoland, Bundesforschungsanstalt für Fischerei, Hamburg-Altona 1, Palmaille 9.

Marking Institution Institut für Küsten- und Binnenfischerei, Bundesforschungsanstalt für Fischerei, Hamburg-Altona 1, Palmaille 9.

Type Shrimp tag. A thin silver wire is wound around the animal between the carapace and the first abdominal segment with a piece of plastic disc, 4–6 mm in diameter. These tags are attached with the aid of special pincers. The colour combinations are red-white, black-white, black-yellow and red-yellow.

Figure



A = preformed tag; B = lateral view; C = dorsal view of shrimp showing the attachment of the tag.

Use Brown Shrimp or Common Shrimp (*Crangon vulgaris* Fabr.).

GERMANY

<i>Scale of Reward</i>	For each recaptured <i>Crangon</i> with full information 1.- DM.
<i>Reception Office</i>	Same as Marking Institution.

Marking Institution Institut für Küsten- und Binnenfischerei, Bundesforschungsanstalt für Fischerei, Hamburg-Altona 1, Palmaille 9.

Type A perforated plate of alcatheene, approx. diameter 15×7 mm, stamped with a serial number. The tags are made in red, white, yellow or other colours and attached by a perlon thread in front of the dorsal fin.
Other tags are circular discs with a central perforation. Approx. diameter 6 mm, no letters or serial numbers. This type of tag is also attached in front of the dorsal fin.

Use **Eel.**

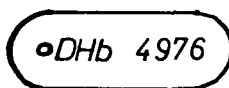
Scale of Reward For tag and information 2.- DM.

Reception Office Same as Marking Institution.

Marking Institution Institut für Seefischerei, Bundesforschungsanstalt für Fischerei, Hamburg-Altona 1, Palmaille 9.

Type Plastic strip with rounded edges and a hole in the left side, diameter 28×1 mm. Painted yellow and stamped with the letters DHb and a serial number. The tag is attached by a perlon thread in front of the first dorsal fin.

Figure



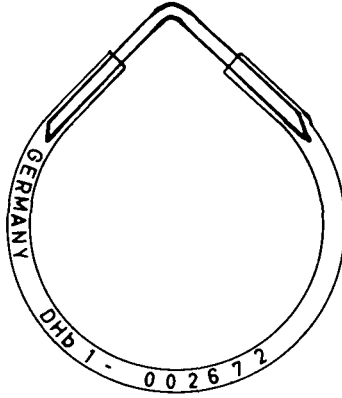
Use

Cod, Herring, Whiting and Catfish.

GERMANY

Type Spaghetti tag. Yellow tube, nearly 10 cm long and 2 mm wide. Attached by a bent and sharpened blue plastic wire in front of the dorsal fin. The yellow tubes are printed with the word GERMANY and the letters DHB 1 - and a serial number.

Figure

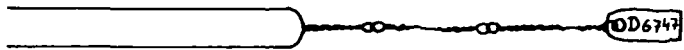


Use **Herring, Whiting, Mackerel and Catfish.**
Scale of Reward For tag alone or with fish and information about place of recapture 6.- DM.
Reception Office Biologische Anstalt Helgoland and Bundesforschungsanstalt für Fischerei, Hamburg-Altona 1, Palmaille 9.

Marking Institution Bundesforschungsanstalt für Fischerei, Institut für Küsten- und Binnenfischerei, Laboratorium Kiel, Kiel-Seefischmarkt.

Type Carlin tag. Red plastic tags, diameter 12 × 0.5 mm, with hole at one end. Attached by a thin twisted silver wire, inscribed with China ink on one side the letter D and a serial number.

Figure



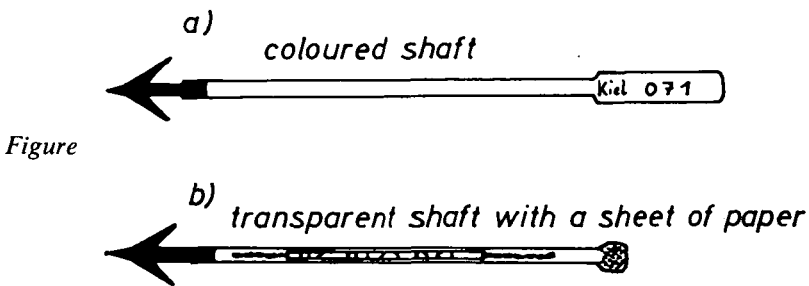
Use **Sea Trout, adult Salmon in the eastern Baltic, Cod in the western Baltic.**

GERMANY

Type

Arrow tags. Two types are used:

- (a) Arrows, nearly 7 cm long, in different colours, viz. brown, yellow, red, white, black and blue. End of shaft flattened and inscribed with China ink the word KIEL and a serial number.
- (b) Arrows, nearly 7 cm long with a black head and a transparent shaft. In the shaft a rolled-up sheet of paper inscribed with the word KIEL and a serial number.

*Use*

Sea Trout, adult **Salmon** in the eastern Baltic, **Cod** in the western Baltic.

Scale of Reward

For each recaptured fish with full information . . . 3.- DM.

Reception Office

Same as Marking Institution, or
 Bundesforschungsanstalt für Fischerei, Institut für Küsten-
 und Binnenfischerei, Hamburg-Altona 1, Palmaille 9.

ICELAND

Marking Institution University Research Institute, Department of Fisheries, Reykjavík.

Type Two black ebonite discs joined by stainless steel wire. One stamped ISL and a number.

Figure



Use **Cod, Haddock and Plaice.**
The disc is attached by thrusting the steel wire between the interradial of the dorsal fin of the plaice or between the opercular bones in the gill cover of the cod.

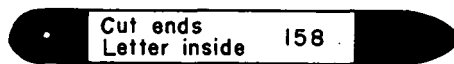
Scale of Reward 20·00 I. kr.

Reception Office Fiskideild, Skúlagata 4, Reykjavík.

Marking Institution University Research Institute, Department of Fisheries, Reykjavík.

Type Hydrostatic tag. Plastic tube, yellow and blue, with a slip of paper inside giving instructions to finder.

Figure



Use **Cod, Haddock and Plaice.**
Attached dorsally by nylon or stainless steel wire.

Scale of Reward 20·00 I. kr.

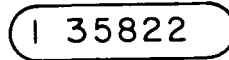
Reception Office Fiskideild, Skúlagata 4, Reykjavík.

ICELAND

Marking Institution University Research Institute, Department of Fisheries, Reykjavík.

Type A nickel plated steel tag about $20 \times 3 \times 1$ mm, stamped I and a serial number.

Figure



Use **Herring**, for internal tagging.

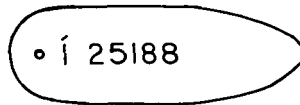
Scale of Reward 20·00 I. kr.

Reception Office Fiskideild, Skúlagata 4, Reykjavík.

Marking Institution University Research Institute, Department of Fisheries, Reykjavík.

Type Alcatheene plate, fixed dorsally by nylon or stainless steel wire. The letter í and a number stamped on the plate.

Figure



Use **Cod, Haddock and Plaice.**

Scale of Reward 20·00 I. kr.

Reception Office Fiskideild, Skúlagata 4, Reykjavík.

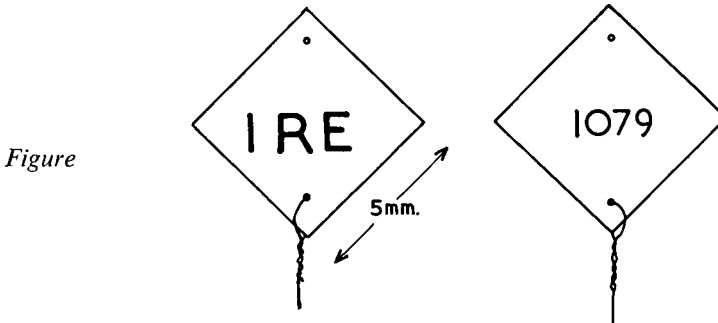
IRELAND

Marking Institution Department of Agriculture and Fisheries, Fisheries Division, 3 Cathal Brugha Street, Dublin 1.

Type Lea Hydrostatic tags. (Some actually made by Einar Lea and others made up from component parts supplied by Mr. NIELS LUNDGAARD, Charlottenlund, Denmark.) The tag is fixed in the region of the dorsal fin by stainless steel wire, blackened or bright.

Use **Salmon and Sea Trout.**

Type Plastic tags. The tag is fixed in the region of the dorsal fin by stainless steel wire.



Use **Salmon, Sea Trout Smolts and Eel.**

Type Plastic tags. The tag is fixed in the region of the dorsal fin by stainless steel wire.



Use **Salmon and Sea Trout Kelts.**

IRELAND

Type Plastic disc tag, 16 mm (5/8") diameter, 1.5 mm thick. The tag is attached by thick stainless steel wire, one yellow numbered button on the upper side of the body with a red on the lower.

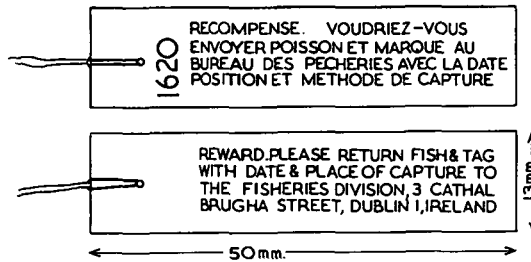
Figure



Use Plaice and other Flatfish.

Type Orange anti-fouling flag tag. The tag, treated with I.C.I. Welvic compound, is attached by braided nylon thread.

Figure

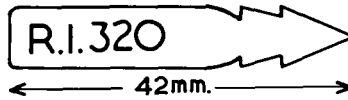


Use Whiting and Dogfish.

IRELAND

Type Plastic arrow suture tag. This is inserted in the suture between carapace and abdomen.

Figure



Use **Lobster and Crawfish.**

Scale of Reward For tag with particulars of tagged fish recaptures . . 5 sh. In addition, value of crustacean if submitted.

Reception Office Department of Agriculture and Fisheries, Fisheries Division, Dublin 1.

Marking Institution Salmon Research Trust of Ireland, Inc., Furnace, Newport, Co. Mayo.

Type Lea Hydrostatic tag attached by blackened stainless steel wire.

Use **Salmon, Sea Trout Kelts and Clean Fish.**

Type Plastic tags (as type 2 for Department of Agriculture and Fisheries above) with index letters S.R.T. These tags are attached by stainless steel wire either in the region of the dorsal fin or in manner of the Swedish salmon smolt tags (see p. 147).

Use **Salmon, Sea Trout Smolts, Brown Trout and Eel.**

Scale of Reward For tag with particulars of tagged fish recaptured . . 5 sh.

Reception Office Salmon Research Trust of Ireland, Inc., Furnace, Newport, Co. Mayo.

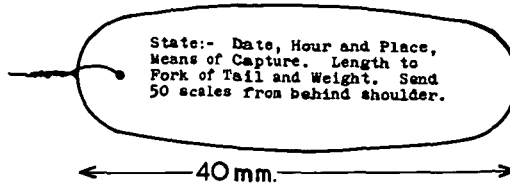
Marking Institution Foyle Fisheries Commission, 8 Victoria St., Londonderry.

Type Plastic tag (as type 2 for Department of Agriculture and Fisheries above), but with index letters F.F.C. These tags are attached by stainless steel wire in the region of the dorsal fin.

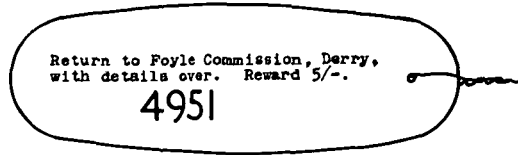
Use **Salmon Smolts and small Trout.**

IRELAND

Type Plastic tag. These tags are attached by stainless steel wire in the region of the dorsal fin.



Figure



Use

Adult Salmon and Sea Trout and Kelts.

Scale of Reward

For tag with particulars of tagged fish recaptured . . . 5 sh.

Reception Office

Foyle Fisheries Commission, 8 Victoria Road,
Londonderry, Ireland.

NETHERLANDS

Marking Institution Netherlands Institute for Fishery Investigations, Fishery Laboratory, Haringkade 1, P.O. Box 68, IJmuiden.

Type Petersen disc. Two 15.5 mm plastic buttons, white or yellow, attached by silver or titanium wire. Upper button stamped YM plus a third letter with a serial number below.

Figure

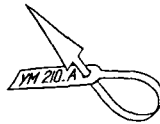


Use **Plaice, Sole, Flounder, Turbot and Brill** in the Wadden Sea and the North Sea.

Scale of Reward Tag 1.50 H. fl.
Plus value of fish.

Type Albrechtsen arrow tag. A yellow or red arrow-shaped tag made of flexible plastic, bearing letter YM, a serial number plus a third letter.

Figure



Use **Plaice, Sole, Flounder, Eel and Pike-perch.**

Scale of Reward Tag 1.50 H. fl.
Plus value of fish.

Type Lea Hydrostatic tag. Attached through back muscle of fish by one-piece stainless wire. Paper inside the tube bearing Holland Fish. Lab. and a serial number.

Figure



Use **Herring, Mackerel, Whiting.**

Scale of Reward For Herring 5.00 H. fl.
For mackerel 2.50 H. fl.
Plus value of fish.

For whiting 1.50 H. fl.
Plus value of fish.

NETHERLANDS

Type Spaghetti tag. A tube of flexible, yellow plastic, diameter 2·1 mm, connected by a bent piece of inflexible, yellow cellulose nitrate. Attached to the back muscle of the fish. Tube stamped Holland - YM - and a serial number.

Figure



Use **Herring, Mackerel, Whiting.**

Scale of Reward For herring 5·00 H. fl.
 For mackerel 2·50 H. fl.
 Plus value of fish.

For whiting 1·50 H. fl.
 Plus value of fish.

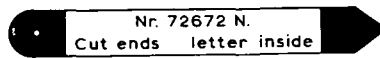
Reception Office For all tags: Fisheries Laboratory, Haringkade 1,
 IJmuiden, Holland.

NORWAY

Marking Institution Institute of Marine Research, Bergen.

Type Lea Hydrostatic tag. A watertight tube of polyethylene, coloured yellow and blue, containing a slip of paper with instructions to finder. The slip is inscribed a serial number, N, and the address of reception office. The tag is attached dorsally by nylon monofilament (cod, haddock coalfish, halibut and Greenland halibut), by stainless steel wire (herring) and by akulon harpoon and double nylon filament (bluefin tuna).

Figure



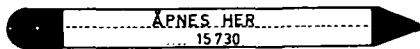
Use **Cod, Haddock, Coalfish, Plaice, Halibut, Greenland Halibut, Herring and Bluefin Tuna.**

Scale of Reward For cod, haddock, coalfish, plaice, halibut and Greenland halibut 5- N. kr.
For herring 10- N. kr.
For bluefin tuna 25- N. kr.

Reception Office Fiskeridirektoratets Havforskningsinstitutt, Postboks 2906, Bergen.

Type Yellow alcatheine film rolled around a core of blue alcatheine.
Instructions to finder revealed by unrolling the film.

Figure



Use **Mackerel, Spiny Dogfish, Porbeagle.**
Attached dorsally by spun nylon (mackerel, stamped M), stainless steel wire bridle (spiny dogfish, stamped H), akulon harpoon and stainless steel wire (porbeagle, stamped HB).

Scale of Reward For mackerel 5- N. kr.
For spiny dogfish 5- N. kr.
For porbeagle 25- N. kr.

Reception Office Fiskeridirektoratets Havforskningsinstitutt, Postboks 2906, Bergen.

NORWAY

Marking Institution Institute of Marine Research, Bergen.

Type A round disc of yellow plastic with black triangular section in centre. It is stamped with the address of the reception office and a number.

Figure



Use

Cod, Halibut.

The disc is fixed to the gill cover by a silver wire, which is anchored to a small disc on the inner side of the gill cover.

Scale of Reward

Cod and halibut 5— N. kr.

Type

A round disc of yellow plastic, stamped Havforskning, Bergen, Norway and a serial number. Information about length and jaw is also asked for.

Figure



Use

Grey, Harp, Hood and Ring Seal.

The tags are placed on the tail, near the tip and wired through the flesh round the tail vertebrae.

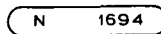
Scale of Reward

Grey, harp, hood and ring seal 25— N. kr.

Type

An internal tag of stainless steel or nickel-plated iron, stamped N and a number, and sometimes another letter also to designate the series.

Figure



Use

Herring, Capelin.

Scale of Reward

Herring 10— N. kr.
Capelin 10— N. kr.

Reception Office

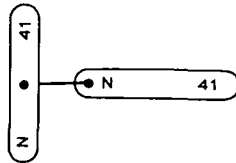
Fiskeridirektoratets Havforskningsinstitutt, Postboks 2906, Bergen.

NORWAY

Marking Institution Institute of Marine Research, Bergen.

Type An internal tag of stainless steel or plastic and an external tag of plastic. In addition to letter and number stamped on the tag a small hole is pierced in the centre of the flat side of the internal tag and at the end of the external tag. A piece of nylon gut No. 30, a knot having been made at one end, is pulled through the hole in the internal tag until it is stopped by the tag. The external tag is then tied to the other end of the nylon gut.

Figure



Use

Crab and Lobster.

The internal tag is inserted through a hole made on the line of separation at moulting on the shell of the crab, and through a split made in the soft skin between carapace and abdomen of the lobster.

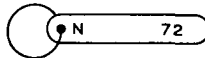
Scale of Reward

5- N. kr. _____

Type

External tag of thin, soft plastic, stamped N and a number, with a small hole at one end.

Figure



Use

Sprat.

The tag is fixed dorsally on the fish by nylon gut.

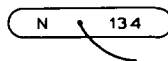
Scale of Reward

5- N. kr. _____

Type

Internal tag of stainless steel or plastic, stamped N and a number, with a small hole in centre of the flat side. A piece of nylon gut melted to a knot in one end is pulled through the hole until stopped by the tag. The nylon gut is visible by colour or by small plastic tubes threaded on the gut.

Figure



Use

Sprat.

The tag is placed in the belly of the fish with the gut hanging out of the wound.

Scale of Reward

5- N. kr.

Reception Office

Fiskeridirektoratets Havforskningsinstitutt, Postboks 2906, Bergen.

POLAND

Marking Institution Morski Instytut Rybacki (Sea Fisheries Institute) Gdynia.

Type Celluloid coated cardboard of various colours with text on one side and the letter P. and a number on the other. A double stainless steel wire is attached to the tag.

Figure



Use

Salmon and Sea Trout.

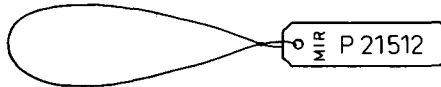
The tag is attached through the muscle in front of the dorsal fin.

Scale of Reward 25 zlotys.

Type

Small, red plastic tag, attached by a loop of soft steelon (synthetic fibre). Stamped MIR, P and a number.

Figure



Use

Flatfish.

The tag is threaded by means of a surgical needle between the opercular bones in the gill cover.

Cod and Brackish Water Species.

The tag is attached by means of a silver wire or synthetic fibre through the muscle in front of the dorsal fin.

Scale of Reward 25 zlotys.

Reception Office Morski Instytut Rybacki, Aleja Zjednoczenia, Gdynia.

Marking Institution Instytut Rybactwa Śródlądowego (Fishery Institute of Inland Waters), Olsztyn.

Type Small, red plastic tag, attached by means of a silver wire, stamped PIRS and a number.

Figure



Use

Salmon, Sea Trout and Freshwater Species.

The tag is attached through the muscle in front of the dorsal fin.

Scale of Reward 25 zlotys.

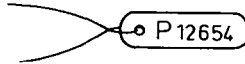
Reception Office Instytut Rybactwa Śródlądowego, Terenowa Pracownia, Gdańsk-Oliva.

POLAND

Marking Institution Rybacka Stacja Doswiadczalna Wyzszej Szkoły Rolniczej (Fishery Experimental Station of the Higher School of Agriculture), Mydlniki k/Krakowa.

Type Small silver plate, attached by a silver wire. Stamped P and a number.

Figure



Use **Salmon, Sea Trout and Freshwater Species.**
The mark is attached through the muscle in front of the dorsal fin.

Scale of Reward 25 zlotys.

Reception Office Rybacka Stacja Doswiadczalna Wyzszej Szkoły Rolniczej, Mydlniki, near Krakow.

Marking Institution Polski Związek Wędkarski (Polish Anglers Society), Warszawa.

Type Small oval silver plate, attached by a thin silver wire. Stamped PZW and a number.

Figure



Use **Salmon, Sea Trout and Freshwater Species.**
The mark is attached through the muscle anterior to the dorsal fin.

Scale of Reward 25 zlotys.

Reception Office Polski Związek Wędkarski, Warszawa, ul. Krajowej Rady Narodowej 42.

PORTUGAL

<i>Marking Institution</i>	Instituto de Biologia Marítima, Lisboa.
<i>Type</i>	Lea Hydrostatic tag.
<i>Use</i>	Tuna.
<i>Scale of Reward</i>	50 escudos.
<i>Reception Office</i>	Instituto de Biologia Marítima, Cais do Sodré, Lisboa.

SCOTLAND

Marking Institution Department of Agriculture and Fisheries for Scotland, Edinburgh.

Type Two ebonite or plastic discs attached by a silver wire. One disc stamped Sc. followed by a letter or number, with serial number below.

Figure



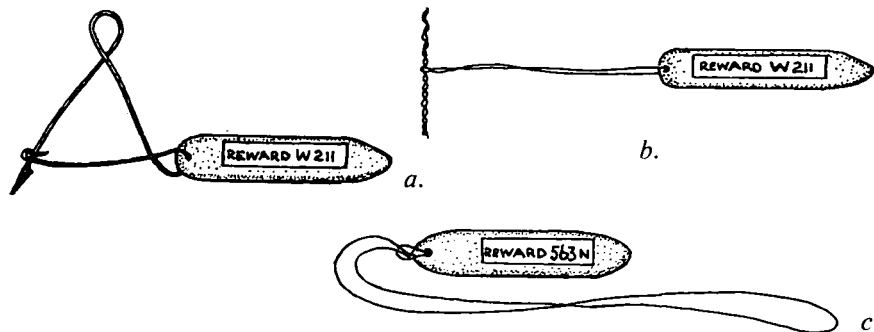
Use **Plaice and Halibut.**
(may also be used for other flatfish and skate).

Scale of Reward For fish and/or tag and capture information 5 sh.
Market value, if appreciable, is also paid.

Note: In halibut the "gill tag" referred to on p. 141 (halibut) may also be used in conjunction.

Type Boat-shaped, hollow, polythene plate containing a paper strip folded over a metal strip, both bearing a serial letter, or letters, and number. Paper strip printed "Marine Lab., Aberdeen, U.K." on one side and "Reward" and serial numbers on the other, attached by
(a) stainless steel wire bridle
(b) a toggle made of nylon loop and twisted wire rod
(c) braided nylon thread.

Figure



Use (a) **Herring and Whiting,**
(b) **Herring,**
(c) **Cod, Haddock and Whiting.**

Scale of Reward For fish and/or tag and recapture information
Herring 10 sh.
Other species 5 sh.
Market value, if appreciable (e.g. cod) also paid.

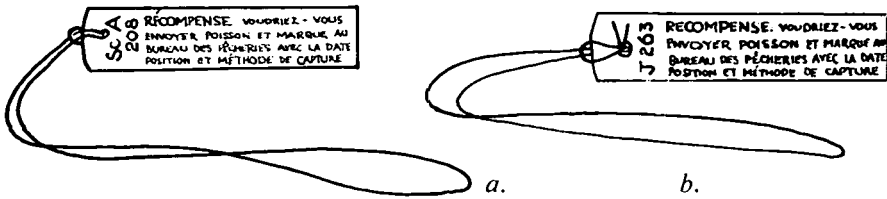
Reception Office The Director, Marine Laboratory, Department of Agriculture and Fisheries for Scotland, P.O. Box 101, Victoria Road, Aberdeen, or any Fishery Office.

SCOTLAND

Marking Institution Department of Agriculture and Fisheries for Scotland, Edinburgh.

Type "Flag" tag: thin, yellow, plastic strip bearing either (a) the letters Sc followed by a serial letter and number or (b) serial number and letter only; plus instructions for return in English and French or English and Faroese. Attached to fish by braided nylon thread.

Figure



Use

(a) **Cod, Haddock, Whiting and Dogfish,**
 (b) **Cod, Haddock and Whiting.**

Scale of Reward

For return of fish and/or tag with recapture information 5 sh.
 Market value of the fish, if appreciable, is also paid.

Type

"Spaghetti" tag: yellow plastic tubing: two thicknesses, ca. 2.5 mm and ca. 1 mm diam. Bears serial letter and number and instructions "Return to Marine Laboratory, Aberdeen". Looped through fish in front of first or second dorsal fin.

Figure



Use

Cod and Haddock (2.5 mm).
Herring and Whiting (1 mm).

Scale of Reward

For fish and/or tag and recapture information,
 Cod, Haddock and Whiting 5 sh.
 Herring 10 sh.
 Market value of the fish, if appreciable, is also paid.

Reception Office

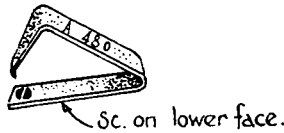
The Director, Marine Laboratory, Department of Agriculture and Fisheries for Scotland, P.O. Box 101, Victoria Road, Aberdeen, or any Fishery Office.

SCOTLAND

Marking Institution Department of Agriculture and Fisheries for Scotland, Edinburgh.

Type "Gill tag": monel folded strap, engraved Sc and serial number. Attached to operculum.

Figure



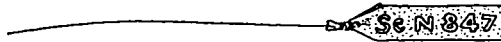
Use **Halibut.**

Scale of Reward For tag and recapture information 5 sh.
plus value of fish in all cases . . . various.

Note: The disc tag referred to on p. 139 (plaice and halibut) may also be used in conjunction.

Type "Flag" tag: strip of red or green plastic, bearing letters Sc. and a serial letter and number. Attached by nickel wire.

Figure



Use **Herring.**

Scale of Reward For return of fish and/or tag with details of capture . . .
. 10 sh.

Reception Office The Director, Marine Laboratory, Department of Agriculture and Fisheries for Scotland, P.O. Box 101, Victoria Road, Aberdeen, or any Fishery Office.

Marking Institution Department of Agriculture and Fisheries for Scotland, Edinburgh.

Type Internal herring tag: stainless steel or nickel-plated iron strip, 20 mm long, stamped Sc and a number.

Figure



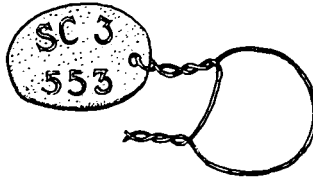
Use **Herring.**

Scale of Reward For return of fish and/or tag and recovery information
. 10 sh.

SCOTLAND

Type Oval copper disc, stamped Sc followed by a serial number with individual number below.

Figure



Use **Crab and Lobster.**
Tag attached to one large claw by copper wire.

Scale of Reward For tag alone with details of recovery..... 2 sh.
Plus market value of crab, if sent..... 1 sh.
Plus market value of lobster, if sent variable.

Reception Office The Director, Marine Laboratory, Department of Agriculture and Fisheries for Scotland, P.O. Box 101, Victoria Road, Aberdeen, or any Fishery Office.

Marking Institution Department of Agriculture and Fisheries for Scotland, Edinburgh.

Type Suture crab tag: yellow or green, ivorine disc, stamped Sc followed by a serial letter with an individual serial number below. Attached to carapace by silver wire.

Figure



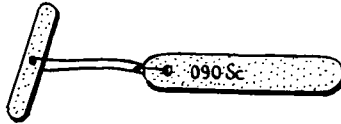
Use **Crab.**

Scale of Reward For tag alone with details of recovery..... 2 sh.
Plus market value of crab, if sent 1 sh.

SCOTLAND

Type Gundersen internal crab tag: consisting of two narrow, yellow-coloured, plastic strips, one small and one larger, connected by strong nylon or gut thread. Both stamped with a serial number followed by the letters Sc. Attached by insertion of small tag under the carapace.

Figure



Use

Crab.

Scale of Reward

For tag alone and details of recovery. 2 sh.
Plus market value of crab, if sent. 1 sh.

Reception Office

The Director, Marine Laboratory, Department of Agriculture and Fisheries for Scotland, P.O. Box 101, Victoria Road, Aberdeen, or any Fishery Office.

Marking Institution Department of Agriculture and Fisheries for Scotland, Edinburgh.

Type

“Prawn” tag: black, polythene disc, with two holes. Stamped Sc and serial number, attached to claw by copper wire.

Figure



Use

Norway Lobster.

Scale of Reward

For animal, tag and recapture information. 3 sh.
For tag alone and recovery information. 2 sh.

Reception Office

The Director, Marine Laboratory, Department of Agriculture and Fisheries for Scotland, P.O. Box 101, Victoria Road, Aberdeen, or any Fishery Office.

Note: As it is not the practice to forward a tagged fish to the country of origin when landed at a foreign port, the following particulars are requested:—

Length of fish from tip of snout to end of caudal fin, except *Halibut* for which *standard length* (i.e. to fork of tail) is requested.

Weight (ungutted), sex and maturity (Hjort scale or modifications).

For age determination purposes the *otoliths* of Halibut, Place, Cod and Whiting, and sample of *scales* from Haddock, are requested. In Herring, the *otoliths* and sample of *scales* are both desirable. The spines of *Squalus acanthias* are requested where possible.

SPAIN

<i>Marking Institution</i>	Instituto de Investigaciones Pesqueras, Cadiz.
<i>Type</i>	Lea Hydrostatic tag.
<i>Use</i>	Bluefin Tuna. The tag is fixed dorsally by nylon.
<i>Scale of Reward</i>	150 pesetas.
<i>Reception Office</i>	Laboratorio de Investigaciones Pesqueras, Cadiz.

SWEDEN

Marking Institution Havsfiskelaboratoriet, Lysekil.

Type Upper disc of round ebonite, attached by silver wire to a round ebonite disc on the lower side. Upper disc stamped Sv and two numbers.

Figure



Use

Plaice, Flounder and Turbot.
The tag is fixed through the posterior part of the body.
Cod.
Fixed in the musculature behind the last dorsal fin.

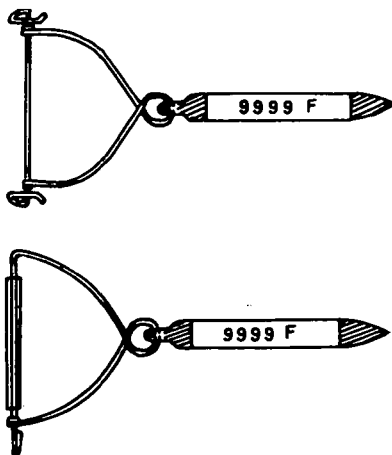
Scale of Reward

For each tag returned 5.00 S. kr.

Type

Lea Hydrostatic tag. Plastic tube, yellow with blue ends; about 35 mm long by 4 mm diameter. Rolled-up paper inside giving instructions to finder.

Figure



Use

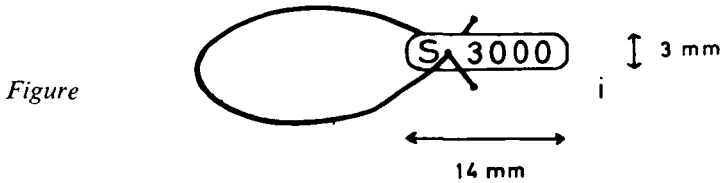
Herring, Cod, Whiting and Mackerel.
Attached by means of stainless steel wire bridles through the musculature some distance in front of the (first) dorsal fin.

Scale of Reward

5-8 S. kr.

SWEDEN

Type Small plastic tag, red or yellow, stamped with letter S and a number. Thread or wire of synthetic fibre.



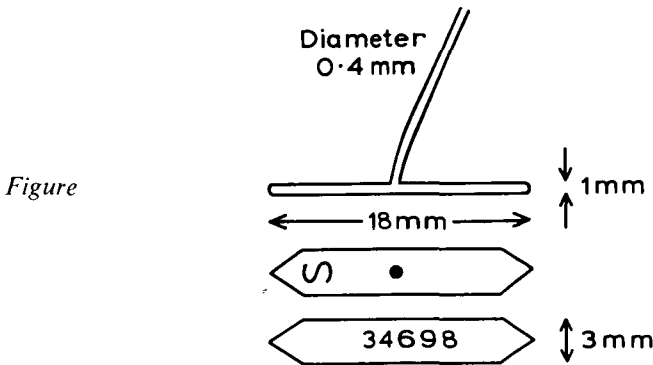
Use **Sprat.**
Attached by synthetic fibre thread through the musculature in front of the dorsal fin.

Scale of Reward 8 S. kr.

Reception Office Havsfiskelaboratoriet, Lysekil.

Marking Institution Kungl. Fiskeristyrelsen, Göteborg.

Type Orange nylon plate with orange nylon thread. The plate bears a number on the one side and the letter S on the other.



Use **Eel.**
A hole is made with a curved awl in the anterior part of the dorsal fin and the plate is put under the skin of the fish through the hole.

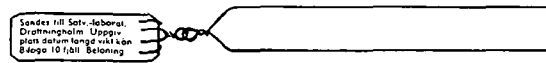
Scale of Reward For each tag returned..... 5.00 S. kr.

Reception Office Kungl. Fiskeristyrelsen, Fack, Göteborg 5.

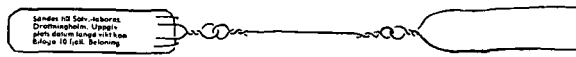
SWEDEN

Marking Institution Salmon Research Institute, Sundsvall.

Type Celluloid-coated cardboard with printed text on the one side and the letter S and a number written on the other. The letter S has also been used in combination with a second letter. A small loop of stainless steel wire is attached to the tag; this is looped through another loop with doubled stainless steel wire.



Figure



Use Young **Salmon and Sea Trout.**

The two free ends of the wire are passed through the fish from the same side just below the dorsal fin and are twisted together on the opposite side. The tag thus moves freely on one side of the base of the dorsal fin.

Scale of Reward For each tag returned S. kr. 5-00.

Reception Office Sötvattenlaboratoriet, Drottningholm.

UNITED STATES OF AMERICA

Marking Institution U.S. Department of the Interior, Fish and Wildlife Service, Bureau of Commercial Fisheries, Woods Hole, Massachusetts.

Type Petersen plastic disc tags. Used in pairs, one with serial number and one with message, 13 mm ($\frac{1}{2}$ ") diameter, attached with stainless steel pin or wire. Numbered discs show letter code as: A, S, E, or D.

Figure



Use

Cod, through nape with pin or wire – two yellow discs, or combination of one red, and one white disc.

Dogfish, through dorsum with pin – one each of yellow, and white disc. Through tip of nose – with pin – two yellow discs, or one each of red, and white disc.

Fluke, through nape with pin – two yellow, or two bi-colour (red and white) 17 mm (11/16") in diameter.

Haddock, on operculum, with pin, two yellow, or one each red, white. Through dorsum with wire, two yellow, or one each red, white. Through dorsum with vinyl tubing, trailing, one only, white, numbered.

Halibut, through dorsum with pin, two yellow, or one each red, white.

Pollack, on operculum with pin, two yellow, or one each red, white.

Redfish, on operculum with pin, also through dorsum with pin, two yellow, or one each red, white.

Sea Scallop, through upper valve in area of byssal notch with pin, one numbered disc, red or yellow.

Scup, through dorsum with pin, two yellow.

Whiting, through nape with pin, one each red, white.

Winter Flounder, through nape with pin, one each red, white.

Yellowtail Flounder, through nape with pin, two yellow, or one each red, white, or two bi-colour (red and white) 17 mm (11/16") diameter.

Scale of Reward One dollar for tag with information, two dollars for fish with tag intact on the fish if submitted to port agent or other representative of the laboratory for examination and measurement. One dollar only for sea scallop tag and shell.

Reception Office U.S. Bureau of Commercial Fisheries, Woods Hole, Massachusetts.

 UNITED STATES OF AMERICA

Marking Institution U.S. Department of the Interior, Fish and Wildlife Service, Bureau of Commercial Fisheries, Woods Hole, Massachusetts.

Type Internal anchor tag. The Einar Lea Hydrostatic tag is attached by a short length of monel chain to the centre of a plastic "internal" tab. The tab is placed inside the abdominal wall through a small vertical incision and lies parallel to the length of the fish, serving as an anchor. The chain and hydrostatic tag remain outside the fish, trailing. The internal tab has a duplicate serial number and short message. Letter code, NA.

Figure



Use **Cod**, yellow internal tab and hydrostatic capsule.
Haddock, yellow internal tab and hydrostatic capsule.
Halibut, yellow internal tab and hydrostatic capsule.

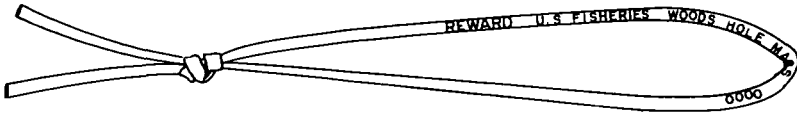
Scale of Reward One dollar for the entire tag with information, or for the internal tag with information when not accompanied by the hydrostatic capsule, as the outside component occasionally become detached and lost.

Reception Office U.S. Bureau of Commercial Fisheries, Woods Hole, Massachusetts.

UNITED STATES OF AMERICA

Type Spaghetti tag. This is a length of vinyl plastic tubing with a message and serial number printed directly on the surface of the tubing. Letter code – A, JX, J, H, or K.

Figure



Use **Cod, Dogfish, Haddock, Halibut, and Pollack.**
Drawn through the dorsum and tied in a loop over the back of the fish. Yellow, with black printing.

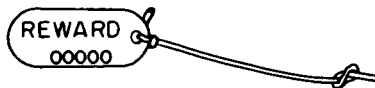
Scale of Reward One dollar for tag with information, two dollars for fish with the tag intact on the fish if submitted to port agent or other representative of the laboratory for examination and measurement.

Reception Office U.S. Bureau of Commercial Fisheries, Woods Hole, Massachusetts.

Marking Institution U.S. Department of the Interior, Fish and Wildlife Service, Bureau of Commercial Fisheries, Woods Hole, Massachusetts.

Type Atkins spaghetti tag. This is an oblong plastic tab with rounded corners, bearing a message on one side, and a serial number on the other. It is attached with a length of vinyl plastic tubing. Letter code C or D.

Figure



Use **Alewife and Fluke**, drawn through dorsum, terminal end of tubing tied in knot, trailing. Yellow tab and tubing.
Scup, drawn through dorsum, terminal end of tubing tied in knot, trailing. Yellow or red tab, yellow tubing, drawn through dorsum and tied in loop over back of fish. Yellow or red tab, yellow tubing.

Whiting, drawn through dorsum, terminal end of tubing tied in knot, trailing. Red tab, yellow tubing. Also, transparent monofilament nylon attachment used, drawn through dorsum and tied in loop over back of fish, used with red tab.

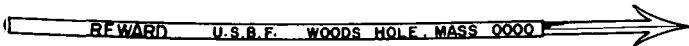
UNITED STATES OF AMERICA

Scale of Reward One dollar for tag with information, two dollars for fish with tag intact on fish if submitted to port agent or other representative of the laboratory for examination and measurement.

Reception Office U.S. Bureau of Commercial Fisheries, Woods Hole, Massachusetts.

Marking Institution U.S. Department of the Interior, Fish and Wildlife Service, Bureau of Commercial Fisheries, Woods Hole, Massachusetts.

Type Dart-spaghetti. This is a spaghetti tag (marked with message and serial number) fixed to a double-barbed nylon dart, for attachment. Letter code, H or K.

Figure 

Use **Redfish and Scup.**
Inserted in dorsum. Yellow (black printing).

Scale of Reward One dollar for tag with information, two dollars for fish with tag intact on fish if submitted to port agent or other representative of laboratory for examination and measurement.

Reception Office U.S. Bureau of Commercial Fisheries, Woods Hole, Massachusetts.

Marking Institution U.S. Fish and Wildlife Service, Bureau of Commercial Fisheries Biological Laboratory, Boothbay Harbor, Maine.

Type Maine herring tag¹). Yellow polyvinyl chloride tubing friction sealed with V-shaped nylon rod. Codes are 2- and 3-letter permutations released in lots of several hundred. First letter indicates year released: X, 1960; H, 1961; K, 1962; A, 1963.

Figure 

Use **Young Herring.**
Tubing placed in hypodermic needle, drawn through anterior dorsal musculature and sealed.

Scale of Reward For tag and information 1.00 U.S. dollar.

Reception Office U.S. Fish and Wildlife Service, Bureau of Commercial Fisheries Biological Laboratory, Boothbay Harbor, Maine.

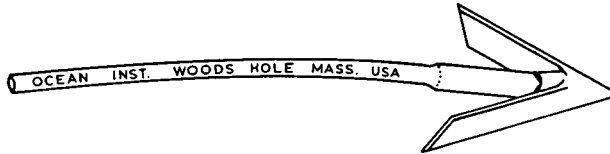
¹) This tag is described in detail by J. E. WATSON (1965): "A Method for Tagging Immature Herring", U.S. Fish Wildl. Serv., Spec. Sci. Rep., Fish., Washington, D.C.

 UNITED STATES OF AMERICA

Marking Institution Woods Hole Oceanographic Institution, Woods Hole, Massachusetts.

Type Dart and streamer tag (Woods Hole Oceanographic Institution design consultants.). Double-barbed plastic dart, with message and number on yellow plastic streamer, or on yellow or red plastic inserted in clear plastic tubing.

Figure



Use **Tuna, Marlin, Sailfish, Swordfish, Amberjack** and miscellaneous fishes.
 Dart set in musculature of fish, with streamer showing externally.

Scale of Reward For tag and information 5.00 U.S. dollars.

Reception Offices Woods Hole Oceanographic Institution, Woods Hole, Mass. 02543.
 Office of Statistical Services, U.S. Bureau of Commercial Fisheries, Gloucester, Mass., and Branch Offices.
 Inter-American Tropical Tuna Commission, Puerto Rico Office, P. O. Box 3712, Marina Post Office, Mayaguez, Puerto Rico 00790.

Marking Institution Woods Hole Oceanographic Institution, Woods Hole, Massachusetts.

Type Dart and capsule tag (Woods Hole Oceanographic Institution design). Stainless steel dart attached with 0.17 cm nylon monofilament to clear plastic capsule with red plastic screw closure, containing number and messages printed on white plastic.

Figure



Use **Tuna, Marlin, Swordfish, Amberjack** and miscellaneous fishes.
 Dart set in musculature of fish, with capsule and part of monofilament showing externally.

Scale of Reward For tag and information 5.00 U.S. dollars.

 UNITED STATES OF AMERICA

Reception Offices Woods Hole Oceanographic Institution, Woods Hole, Mass. 02543.
 Office of Statistical Services, U.S. Bureau of Commercial Fisheries, Gloucester, Mass., and Branch Offices.
 Inter-American Tropical Tuna Commission, Puerto Rico Office, P. O. Box 3712, Marina Post Office, Mayaguez, Puerto Rico 00790.

Marking Institution Woods Hole Oceanographic Institution, Woods Hole, Massachusetts.

Type Dart and streamer tag (Woods Hole Oceanographic Institution design). Numbered stainless steel dart, with message and number on white plastic streamer covered with clear plastic tubing.

Figure



Use **Tuna, Marlin and Sailfish.**
 Dart set in musculature of fish, with streamer showing externally.

Scale of Reward For tag and information 5.00 U.S. dollars.

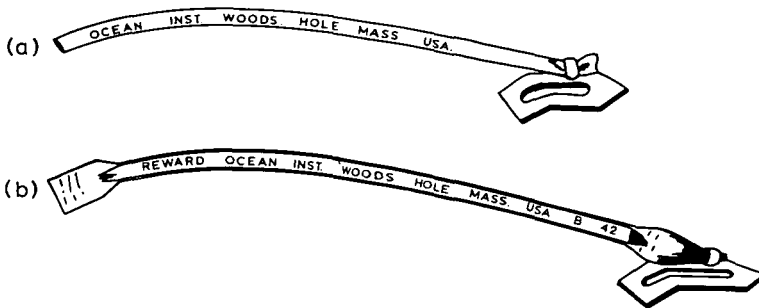
Reception Offices Woods Hole Oceanographic Institution, Woods Hole, Mass. 02543.
 Office of Statistical Services, U. S. Bureau of Commercial Fisheries, Gloucester, Mass., and Branch Offices.
 Inter-American Tropical Tuna Commission, Puerto Rico Office, P. O. Box 3712, Marina Post Office, Mayaguez, Puerto Rico 00790.

UNITED STATES OF AMERICA

Marking Institution Woods Hole Oceanographic Institution, Woods Hole, Massachusetts.

Type Dart and streamer tag (Woods Hole Oceanographic Institution design). Stainless steel dart with message and number on yellow plastic streamer (a) or on neutral tape or red plastic inserted in clear plastic tubing (b).

Figure



Use **Tuna, Marlin, Sailfish, Swordfish, Amberjack** and miscellaneous fishes. Dart set in musculature of fish, with streamer showing externally.

Scale of Reward For tag and information 5.00 U.S. dollars.

Reception Offices Woods Hole Oceanographic Institution, Woods Hole, Mass. 02543.
Office of Statistical Services, U.S. Bureau of Commercial Fisheries, Gloucester, Mass., and Branch Offices.
Inter-American Tropical Tuna Commission, Puerto Rico Office, P.O. Box 3712, Marina Post Office, Mayaguez, Puerto Rico 00790.

 UNITED STATES OF AMERICA

Marking Institution Woods Hole Oceanographic Institution, Woods Hole, Massachusetts.

Type Dart and streamer tag. Single-barbed plastic dart, with message and number on yellow plastic streamer.

Figure



Use **Tuna, Marlin, Sailfish, Swordfish, Amberjack** and miscellaneous fishes.

Dart set in musculature of fish, with streamer showing externally.

Scale of Reward For tag and information 5.00 U.S. dollars.

Reception Offices Woods Hole Oceanographic Institution, Woods Hole, Mass. 02543.

Office of Statistical Services, U. S. Bureau of Commercial Fisheries, Gloucester, Mass., and Branch Offices.

Inter-American Tropical Tuna Commission, Puerto Rico Office, P.O. Box 3712, Marina Post Office, Mayaguez, Puerto Rico 00790.

UNITED STATES OF AMERICA

Marking Institution Woods Hole Oceanographic Institution, Woods Hole, Massachusetts.

Type Dorsal loop tag. Message and number on white plastic covered with clear plastic tubing, or on yellow plastic inserted in clear plastic tubing.

Figure



Use **Bluefin Tuna.**
Tied through dorsum behind second dorsal fin.

Scale of Reward For tag and information 5.00 U.S. dollars.

Reception Offices Woods Hole Oceanographic Institution, Woods Hole, Mass. 02543.

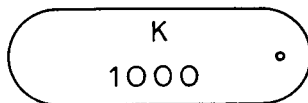
Office of Statistical Services, U.S. Bureau of Commercial Fisheries, Gloucester, Mass., and Branch Offices.

Inter-American Tropical Tuna Commission, Puerto Rico Office, P. O. Box 3712, Marina Post Office, Mayaguez, Puerto Rico 00790.

Marking Institution U.S. Fish and Wildlife Service, Bureau of Commercial Fisheries Biological Laboratory, Beaufort, North Carolina.

Type Streamer type tag. Single yellow oblong plastic tag with nylon string. Stamped MAIL TO: U.S. FISH LAB., BEAUFORT, N. C. and REWARD and number.

Figure



Use **Striped Bass.**
Nylon string is sewn through fish's back about 7 mm behind and below anterior insertion of the dorsal fin with a needle and then tied so tag hangs from a loop.

Reward 1.00 U.S. dollar.

Reception Office U.S. Bureau of Commercial Fisheries Biological Laboratory, Beaufort, North Carolina.

 UNITED STATES OF AMERICA

Type Petersen disc tags. Two red plastic discs strung on nickel or stainless steel pin. One disc is stamped: MAIL TO: U.S. BIOL. LAB., BEAUFORT, N.C., and REWARD and number.



Use **Shad.**
The stamped disc is strung on the 8.5 cm nickel pin against the head of the pin; the pin is inserted through the fish's back about 7 mm behind and below the anterior insertion of the dorsal fin; the other disc is fitted on the protruding pin; excess wire is cut off; the pin is twisted in a loop which presses both discs against the fish.

Scale of Reward 50 cents.

Reception Office U.S. Bureau of Commercial Fisheries Biological Laboratory, Beaufort, North Carolina.

U.S.S.R.

Marking Institution Polar Research Institute of Marine Fisheries and Oceanography (PINRO), Murmansk.

Type Monel strap tag. Stamped: USSR MYPMAHCK and a serial number.

Figure



Use

Cod, Haddock, Wolf-fish.
Tag is bent and clenched on operculum.

Scale of Reward

For tag and information on time, place of capture and size of fish 1½ Roubles.

Reception Office

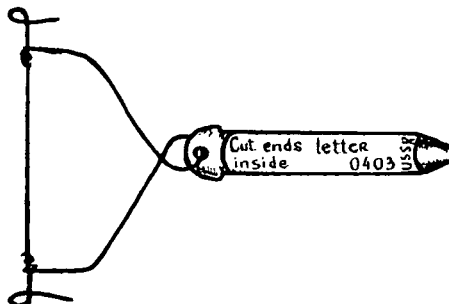
PINRO, Kolskaya 6, Murmansk.

- Marking Institution*
- (a) All Union Research Institute of Marine Fisheries and Oceanography (VNIRO), Moscow.
 - (b) Polar Research Institute of Marine Fisheries and Oceanography (PINRO), Murmansk.
 - (c) Atlantic Research Institute of Marine Fisheries and Oceanography (ATLANTNIRO), Kaliningrad.
 - (d) Baltic Fisheries Research Institute (BALTNIIRKH), Riga.
 - (e) Estonian Department of BALTNIIRKH.

Type

Hydrostatic tag made of an alcatheue watertight, transparent tube, containing a coloured slip of paper bears a serial number, the address of marking institution and instructions to the finder. Tags for cod and haddock measure 45–50 mm in length and 4–5 mm in diameter. Tags for herring are 35–40 mm long and 3–4 mm in diameter.

Figure



Use

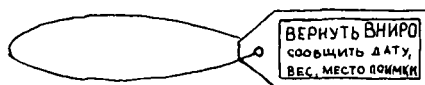
Cod, Haddock and Herring in North Atlantic.
Cod in the Baltic Sea.
Mackerel and Horse Mackerel in Central and South Atlantic.

U. S. S. R.

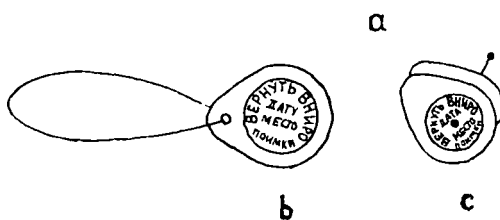
The tag is attached by means of a stainless steel wire or alcatheine monofilament thread at the base of the anterior edge of the first dorsal fin of herring, mackerel and horse mackerel.

Scale of Reward For tag and information 1½ Roubles.
Reception Office (a) VNIRO, V. Krasnoselskaya 17, Moscow B-140.
 (b) PINRO, Kolskaya 6, Murmansk.
 (c) ATLANTNIRO, Dmitrij Donskoy 5, Kaliningrad Reg.
 (d) BALTNIIRKH, Estonian Department, Apteegi 1-2, Tallin.

Type (a) The tag is made of a coloured slip of paper embedded in flat, transparent alcatheine of a rectangular shape. A serial number is printed on one side and address of marking institution on the other. The tag measures 12-25 mm in length and 5-7 mm in diameter.
 (b) This tag is made of flat, pear-shaped transparent alcatheine, embedded in which is a coloured paper disc printed with address of the marking institution and instructions to finder. The tag is 9-12 mm long and 7-10 mm wide.
 (c) The tag consists of the two pear-shaped plates described under (b) and is attached in the same manner as the button-type tags.



Figure



Use (a) and (b) **Cod, Herring, Mackerel, Horse Mackerel.**
 (c) **Young Salmon (Smolts).**
 The tags are attached with alcatheine monofilament thread (0.3-0.5 mm in diameter) in front of the dorsal fin.

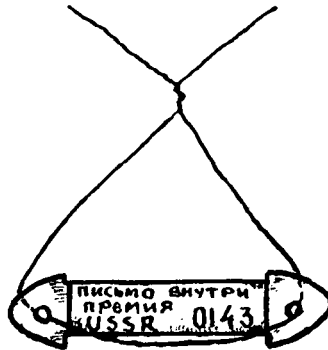
Scale of Reward For tag and information 1½ Roubles.
Reception Office (a) VNIRO, V. Krasnoselskaya 17, Moscow B-140.
 (b) ATLANTNIRO, Dmitrij Donskoy 5, Kaliningrad Reg.
 (c) BALTNIIRKH, Estonian Dept., Apteegi 1-2, Tallin.

U.S.S.R.

Marking Institution: (a) Atlantic Research Institute of Marine Fisheries and Oceanography (ATLANTNIRO), Kaliningrad.
 (b) Baltic Fisheries Research Institute (BALTNIIRKH), Tallin.
 (c) Estonian Department of BALTNIIRKH, Tallin.

Type

Hydrostatic tag made of an alcatheene watertight, transparent tube with flat ends with apertures. It contains a coloured slip of paper bearing a serial number, the address of the marking institution and instructions to the finder. The tag is 30–35 mm long and 4–5 mm in diameter.

Figure*Use*

Plaice in the Baltic Sea.

The tag is attached to the back of the fish by stainless steel wire.

Scale of Reward

For tag and information 1½ Roubles.

Reception Office

(a) ATLANTNIRO, Dmitrij Donskoy 5, Kaliningrad Reg.
 (b) BALTNIIRKH, Besdeligu 1, Riga.
 (c) BALTNIIRKH, Estonian Dept., Apteegi 1–2, Tallin.