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North Atlantic Fish Marking Symposium

Observations from Submissions on Tagging Publicity Methods

By F. D. McCracken

At the 1958 Annual Meeting of ICNAF it was agreed that a North Atlantic Fish Marking Symposium would be sponsored by ICNAF. An item about Publicity is included in the outline of the scope of the symposium and in the draft agenda. It was agreed that submissions for this item should be solicited for the 1959 Annual Meeting and presented at that time.

Acting on these instructions letters were sent out to member countries in January and again in April, 1959, requesting papers on publicity methods. Submissions by Canada, Denmark, Germany, Portugal, Spain, United Kingdom and the United States are attached. Copies of the supporting material including posters, maps, letters, etc., have been deposited with the secretariat.

In addition it is expected that several verbal or written submissions will be presented at the meeting.

This note attempts to summarize briefly the similarities and differences indicated by these submissions.

Propaganda Dissemination. The submissions list the laboratories and government agencies concerned with tagging and recaptures. Generally there are one or two in each country and close cooperation within countries is indicated. Laboratories carrying out tagging generally enlist the aid of other agencies within the country in obtaining and sometimes in processing recapture data.

Most countries use a variety of schemes to publicize their taggings and help ensure recaptures. The following general information about these schemes seems worth noting.

Tagging lists--Lists of tagging are issued by all countries. However, it appears that countries associated with ICES, as well as ICNAF, issue lists in greater detail.

Posters, handbills, etc.--All countries indicate that this type of material is distributed widely to landing ports and/or fishing vessels. Those countries with fleets making long voyages and landing at central ports tend to concentrate on distribution within the fleet. Countries with scattered fishing ports and processing establishments emphasize wider shore distribution of this type of material. One novel development noted is an attempt to include circulars in pay envelopes for crews and fish market personnel (U.K. submission).

Generally these posters and circulars are designed to publicize the type of tag, reward, information required and agency collecting tags. They may also attempt to explain why tagging is carried out. Only two countries (Canada and Spain) indicate that the poster designed through ICNAF is being used.

Radio broadcasts and press releases--Generally broadcasts

are made near the time of tagging. Mainly they appear to be included on other broadcasts beamed at fishermen. It may be noted that Portugal transmits information through the H. S. "Gil Bannes". Press release methods in advance of tagging are noted particularly by Denmark, Germany and U.S.A. It appears that these radio and press releases are not regularly recurring but are instigated usually at the beginning of new tagging experiments.

Reward payment methods are also used to publicize tagging experiments, these will be summarized under the reward section of this document.

Information Required. All countries request quite similar information which includes some or all of: tag number, date, position, depth and method of recapture, either length of fish or its return, scales or otoliths, weight, sex of fish, name of vessel and finder. Those countries with fleets landing fish in a fresh condition tend to stress the return of the fish. Salt fishing fleets are asked to measure the fish and collect other biological data (submissions: Portugal and Spain).

Most countries do not vary the reward with the amount of information reported. Exceptions are Spain, where rewards are scaled according to information obtained; and within the U.K., Scotland reduces the reward paid for tags returned without details of capture.

Most countries landing fish head on, fresh, make special attempts to recover the fish. They use various port officials, laboratory technicians and local merchants. Plastic bags issued in the U.K. for return of fish is a novel idea.

Payments for the return of the fish itself are quite variable. For example in the U.K. the value of the fish is refunded if requested by the legal owner, in Canada the value of the fish is refunded automatically and in the U.S. a flat rate of one dollar is paid for each fish returned.

Rewards. Two types of rewards are used, one is monetary; the other provides some form of personal satisfaction to the individual returning the tag.

Monetary rewards--It seems generally accepted that each country in ICNAF pays rewards to its own nationals for all tags turned in regardless of the country from which the tag originated. None of the submissions indicate dissatisfaction or failure to carry through with this procedure. (More explanation of ICES method seems desirable; see note on balance of payment included in U.K. report.)

One form of variation in monetary reward (related to information obtained) is noted above. In addition it appears that the actual reward also varies between countries. Translation of the rewards into standard monetary units would be interesting but may not be particularly meaningful without a variety of other considerations.

While not included in these advance submissions it is understood that a report by Norway concerning a tag recapture lottery method will be available.

Other reward types--Within this category there occurs the greatest variation and also examples of ingenuity. It is difficult to summarize the methods used although all are based on providing

information and satisfaction to the individual returning the tag. All countries make special efforts to send out information about the recaptured fish. When possible the returnee is given information about where and when the fish was tagged and its growth by the person collecting the tag. Tagging lists are important for this purpose. The submission by the U.S. notes that they give particular emphasis to this personal touch and also to the personal touch in paying the monetary reward. Also noteworthy are the map-letter overlay forms submitted by Canada and the U.S., for use where personal contact is not possible.

Publication of the names of nationals returning tags is reported by Germany and Portugal. A somewhat similar form of award is made by the U.S. in placing tag recapture display boards at major fishing ports.

Notes on Tagging, especially Publicity and Rewards
in the Federal Republic of Germany

By Gerhard Krefft

Tagging work on marine fish was started again after World War II by the Federal Republic of Germany in 1955, when herring tagging in the Dogger Bank Area of the North Sea began. Since that year herring are tagged in that area as well as off the estuary of the river Elbe on a rather small scale, the highest number per year being about 2,000 specimens. Meanwhile tagging experiments with redfish (1956) off Iceland and eastern Greenland and coalfish (1957) in Icelandic and Norwegian waters have been started too. Until now, however, no tagging has been performed in the ICNAF area. In contrast with the rather few taggings done by this country, there is a considerable and increasing number of foreign tags returned each year by German fishing vessels, amounting in 1957 to 438 (excluding the figures for the Institut für Meereskunde, Kiel, where mainly a large number of salmon tags from Sweden were collected).

(a) Organization. Immediately after any tagging experiment carried out by German scientists a report is issued for the information of fishermen and other interested people. This report states the aim and operation of the experiment, and contains a list of the released fish and the serial numbers of the tags as well as particulars as to recapture data wanted, institutions to which the recaptures are to be addressed and rewards to be paid. It is essentially important to publish the report shortly after the tagging operation, because the highest number of returns usually is to be expected within the first weeks after the release of the fish. Besides it is found useful to give advance information on taggings in fishery magazines and daily newspapers in order to call for collaboration. The information is collected with the assistance of the governmental fishery officers, the shipowners' organizations, etc., as well as by the scientific research institutes. These institutes take care of the forwarding of the information to the appropriate research institutes in all countries concerned. By means of the current routine reports, most of the people working in all fishery branches already know how to handle a tagged fish and where to deliver the tags and information about the returns. The work of the institutions dealing with the delivered tags is facilitated by means of printed forms (attached). All information about fish tagged by foreign institutions is forwarded to these as soon as possible.

During the operation of the ICES tagging experiment with internal tags on immature North Sea-herrings in 1957 and 1958, a special effort was made along the lines given by ICES in order to ensure the collaboration of the fishmeal factories as well as the fishermen through the aids of broadcasts, posters and information to the newspapers.

(b) Information required. This includes items such as data and locality of the catch, gear used, the length and weight of fish, otoliths, scales and (only for herring delivered to research institutes) information concerning race characteristics, sex and maturity stage. If possible the fish is to be delivered to one of the research institutes. If the fish happens to be discovered only when arriving at the market or at the retailers, the skipper of the fishing vessel is requested by letter to forward information concerning the particulars of the cruise.

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(c) Rewards. The reward paid for each return in Germany is DM 6, (= 10 sh) with the exception of Baltic salmon, for which only DM 3,- - are paid due to the large number of returns of salmon tagged by Sweden. The reward is paid immediately by the research institute receiving the fish. For that purpose each of the institutions concerned disposes of funds procured by the German Scientific Commission for Exploration of the Sea. Rewards are paid for all tagged fish found on board German fishing vessels, markets and other shore installations without regard to the country by which the fish was tagged. On the other side, the foreign organizations pay the rewards for fish recovered in their country but tagged by German scientists. Each person delivering a tagged fish is informed about the corresponding data of release as soon as possible. Here the lists of tagged fish issued by most of the European institutions doing tagging work are most helpful provided that these lists are published and sent to all other institutions concerned soon after finishing such experiments. Besides the personal information to the people reporting recaptures a review is published every three months including all recaptures announced with data as to the release and recapture of the tagged fish, the vessels and the finders' full names and addresses.

Annexes

- a) Form used to inform foreign research institutes about recaptured tagged fish.
- b) Form used by German research institutes to fill in information about recaptured fish.
- c) Postcard to inform the deliverer of a tagged fish about place and time of release.
- d) Postcard used to get information concerning the place of recapture of a tagged fish discovered after unloading during industrial processing.
- e) Review of captured tagged fish regularly published in the "Wissenschaftliche Informationen für die Fischereipraxis".

Notice About the System Adopted in Portugal for the Collection
and Distribution of Information on Tags Recovered in the ICNAF Area

By Mario Ruivo

I. Organization

(1) In Portugal, the Department responsible for all matters concerning the collection, centralization and distribution of information on tags found by Portuguese fishermen in the ICNAF area is the

Gabinete de Estudos das Pescas,
Avenida da Liberdade 211, 4 ., D .
Lisbon, Portugal.

(2) Fishermen's attention to the collection of tags is called by the distribution of posters, specimen enclosed. These posters are normally stuck in the refectory of all ships operating in the ICNAF area and in the rooms of some administrative or auxiliary fisheries offices.

The news issued in the "Jornal do Pescador" (particularly the periodical lists of collected tags, with the names of fishermen reporting recaptures, etc.) also contributes to that purpose. Circulars or verbal instructions by radio from on board the H/S "Gil Eannes", call the attention of the captains of the codfishing fleet to the necessity of stimulating their crews to pay greater care to the recapture of tags and urge upon them to control, themselves, the adequate completeness of the inquiry stamped on the envelopes (specimen enclosed) distributed to each vessel, for the keeping of recovered tags and their subsequent dispatch to the Gabinete de Estudos das Pescas.

II. Required Information - Compilation of Data

(1) The required information stamped on the envelopes to be used for the tags is the following:

Tag No.
Vessel's Name
Fisherman's Name
Kind of Fish
Date of Capture
Place of Capture
Exact Length of Fish (in cm.)

(2) The measurement of the fish and the completion of the enquiry on the envelope are effected by an officer of the vessel (captain or mate). Sometimes, in accordance with what has been advised in the instructions given to the captains - the otoliths of the tagged fish are collected and forwarded together with the tag.

(3) On return from each voyage, the captains of the codfishing vessels send to the Gabinete de Estudos das Pescas - directly or through the respective shipowners - all the envelopes containing the tags collected during the fishing campaign. Accidentally, it may happen that a fisherman may deliver tags to the staff of the Canadian laboratories in the ports of call.

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(4) The system used for the compilation of the tags sent to the Gabinete de Estudos das Pescas, is as follows:

- a) The front parts of the envelopes containing the tag and giving all information on the tagged fish are registered and glued on a card (Exhibit B) for the files of the services of recovery of tags.
- b) The tags are fixed on printed forms (Exhibit C) and grouped by the countries or laboratories that have carried out the tagging operation; by types of tags and by their serial number. All information regarding the tagged fish (date and place of recapture, length, sex, weight and fishing gear used) is also entered on the form.
- c) Once all tags have been thus placed, the forms are photocopied. The photocopy is filed by the Gabinete de Estudos das Pescas, as a control document (Exhibit D). The originals with the tags and the otoliths eventually collected and sent to the Gabinete de Estudos das Pescas are delivered to the laboratories which carried out the tagging.

III. Incentives (Rewards, Propaganda).

- (1) A reward of Esc. 30.00 (equivalent to \$1.00) is paid to the fisherman for each tag found and delivered to the Gabinete de Estudos das Pescas.
- (2) The system of payment of rewards is as follows:
 - a) Based on the information registered on the envelopes of the collected tags (File cards mentioned in II. (4) a)), the enclosed card (Exhibit E) is completed and sent to the fishermen who found the tags.
 - b) A postal order of Esc. 30.00 is simultaneously sent to them through the Gremio dos Armadores de Navios da Pesca do Bacalhau.
 - c) When the receipt (the lower part of the postcard, Exhibit E) has been returned to the Gabinete de Estudos das Pescas by the addressee of the postal-order, it is glued to the forepart of the card (mentioned in II. (4) a) in order to render possible at any time the control of the working of the system of payment of rewards.
- (3) As an incentive to stimulate the recovery of tags in the ICNAF area, the names of the fishermen who recover tagged fish during the campaign and deliver the tag and all required information to the Gabinete de Estudos das Pescas are periodically issued in the "Jornal do Pescador (see enclosed specimen).

Publicity Information and Rewards in the U.S. ICNAF Tagging Program

by S.L. Cogswell, Fishery Method and Equipment Specialist

In recent years we have tried to bring more of the "personal touch" into the handling of tag returns. As our system has evolved, it is now usually possible for a fisherman who recovers a tag to hand it to one of our agents as soon as he comes ashore and to receive on the spot a cash reward and at least general information about where the fish was tagged. We feel that this personal touch is important and has contributed much to improvement of return percentages.

Agents of the Woods Hole Laboratory stationed at the major New England fishing ports receive tags and information directly from the fishermen and pay these cash rewards. These agents also examine returned fish for condition and assist in keeping fishermen and processing plant owners informed on tagging operations.

Agents of other branches of the Bureau and Canadian fisheries officers are provided with information on tagging operations pertinent to their areas and are supplied with tag return forms. These people often furnish on request by mail or telephone supplementary information about returns which have been mailed direct to the Laboratory.

While we are unable to station agents in small fishing ports, often a private citizen of the port with some permanence, such as a fillet plant foreman or a leading vessel captain, is contacted. This man is informed as to tagged species to look for, information required, and is given a supply of posters, tag return forms and stamped addressed envelopes. Such voluntary assistants are valuable in making contacts in the port, and usually seem to enjoy the participation in our program.

Thus we have helping us in publicity and handling of tag returns port agents of our own laboratory; agents of other departments of the Bureau from Townsend Inlet, New Jersey, to Eastport, Maine; Canadian fishery officers at ports in New Brunswick and Nova Scotia; other fishery laboratories in the United States and Canada; and individuals such as fishermen, market owners, etc.

At Woods Hole there is one full-time man whose job it is to look after all of the tagging operations of the laboratory. All publicity for tagging operations is cleared through this department. He also assists the biologists in design of experiments and new tags, in procurement of materials and supplies for tagging operations, and often participates in the actual tagging operations. He receives all tags returned to the laboratory, maintains the records of tagging operations, prepares the letters of acknowledgement which are sent out, and sees that the rewards are paid. He also maintains a cash fund to supply the field agents.

Publicity is achieved through various media. Press releases are handed out in specific areas in advance of tagging operations, posters (Exhibits A, B, C) are put up, and later the lists of names of those who have returned tags are published. Appropriate informative literature is included with each acknowledgement of a tag return (Exhibits D, E, F, G). A special letter sheet (Exhibit H) has been designed for haddock letters with a tinted overlay chart covering the entire surface of the paper. On this the points of tagging and recapture are indicated. Other letter forms (Exhibits J & K) are also used. An elaborate portable tag display board (Exhibit L) is shown periodically at all major fishing ports. Presently a board showing movements of haddock tagged over the last four years on U.S. and Canadian fishing grounds, kept up to date on a weekly basis, is posted at major ports. Posted on this board (Exhibit M) with the location of each tag returned

is the name of the person returning the tag, his address (or vessel), and the number of tags, if any, that he has previously returned.

The following information is requested with each tag return: species, length, locality captured, date, depth, gear, name of vessel, name and address of finder, remarks, and, where practicable, shells of tagged scallops or scales and otoliths of tagged fish.

One dollar is paid for fish or scallop tags with information. Two dollars is paid when a fin fish is returned with its tag. Tag returns from within the United States which are mailed direct to our laboratory are acknowledged by mail with a crisp, new one-dollar bill reward enclosed. Every tag return, regardless of how received, is acknowledged by a letter from the laboratory at Woods Hole.

Thus, with the personal touch applied to tag returns and the centralization of publicity and all other control of tagging in a single department, we feel that we are in reasonably good control of tag returns.

Notes on Tagging

Grønlands Fiskeriundersøgelser, Denmark

by Paul Hansen

- A. Release lists are prepared as soon as all journal sheets are received from Greenland. These lists are distributed to all research organizations in interested countries. The preparation of release lists and handling and preparation of all information about recaptures of fish tagged in Subarea 1 are made by Grønlands Fiskeriundersøgelser, Charløttenlund Slot.

Release lists are published in "Beretninger vedrørende Grønland" (information concerning Greenland).

The Greenland fishermen are informed about taggings by means of posters mounted on notice-boards in the Greenland towns and in the shops. Propaganda in the Greenland newspapers and broadcasting has been used to encourage delivery of tags from recaptured fish together with all information about the recapture.

Greenland fishermen deliver their tags from recaptured fish to the borough treasurer's office in their home town. At the small outposts the tags are delivered to the fisheries officer. Reward is paid at delivery. Tags are sent from Greenland to the Royal Greenland Trading Company, which send them further to Grønlands Fiskeriundersøgelser, Charløttenlund.

- B. Information required.

The fishermen are asked for information concerning date, position (place of recapture), depth, method of capture, total length of fish, weight, otoliths, sex, name of vessel or fisherman and home port.

- C. The Greenland fishermen are paid 3 Danish kroner for all kinds of fish tags, Danish or foreign. Faroese fishermen are paid 5 Danish kroner a tag. In accordance with the agreement between the ICNAF nations rewards for foreign tags are paid to the Greenland fishermen by Grønlands Fiskeriundersøgelser. The tags are, together with all information about the recapture, returned to the nation, who made the tagging.

Note on Tagging in the United Kingdom

By C. E. Lucas and G. Trout

Broadly speaking, arrangements at the English and Scottish laboratories are similar, and are likely to become more so. Some present differences are, however, noted below.

1. Notification of U.K. Liberations

a. Overseas:

Tagging is carried out from research or commercial fishing vessels and the first notification is contained in cruise reports distributed to interested countries.

For all English experiments release lists are prepared as soon as possible after the cruise and circulated to the heads of research organizations of countries likely to be fishing the populations under study.

Serially numbered tags are used and the release lists contain:

- i. fish lengths against each serial number, together with details of sex in the case of plaice and, with some roundfish, details of the general condition of the fish and scale damage,
- ii. release positions of each group of fish (i.e. from each separate trawl haul),
- iii. the date of release and,
- iv. the range of depths encountered during the release period.

b. Internal:

Administrative officers at the major fishing ports, who are responsible for collection of tags and payment of rewards, are also supplied with release lists, so that fishermen may be informed immediately of the release history of each fish returned.

In the Scottish experiments, the release lists are retained at the Laboratory, and information on the liberations is supplied by letter on receipt of the recapture data.

c. Lists from other countries:

These are normally retained at the Lowestoft and Aberdeen Laboratories through which all British recaptures, whatever their origin, are finally channelled.

d. Payment:

In England a flat rate of five shillings has been instituted for all species (except for the herring which remains at ten shillings), irrespective of the amount of information accompanying the fish or tag; in Scotland only 2/6d is paid for tags without details of capture. In the case of commercially valuable species (e.g. soles) or large specimens, the value of the fish is also refunded if this is requested by the legal owner.

Returns are summarized annually and the balance of payments between other countries is made at the end of the Financial Year--i.e. March 31.

e. Publicity:

Coloured posters are displayed prominently on all fish markets liable to handle tagged fish. Information desired with the return of tag is listed and includes date, position and depth of water, name of vessel and gears used.

Small handbills are also sent to individual ships, and circular letters to skippers of trawlers, explaining the aims of the experiment, have also proved effective publicity. An attempt is being made to provide circulars for inclusion in pay packets of both trawler crews and fish market personnel.

When fishermen are the finders of marked fish, information about their recapture is received by the quayside officers when they interview the ships' officers as part of their collection of statistics. At the major ports where adequate staff exist, the fish are measured, weighed and scaled or otolithed and this information is sent to the Laboratory. If the research officer particularly requests it or it is more appropriate to do so the fish are sent to the Laboratory.

The fish or tags not returned to the major ports are sent to the Laboratory as the message on the tag asks. They come from widely differing sources such as small ports without a quayside office staff, individual fishermen, inland fishmongers, processing plants and occasionally, even housewives. Since the message on the tag asks for both fish and tag to be sent, parcels of semi-rotten fish occasionally arrive with the mail. The passage of these parcels is deprecated by the postal authorities. If therefore a marking experiment is carried out in a new area covered by a small port, plastic bags are supplied to likely senders for posting.

It has been found that replying to these individuals with a personal letter is extremely time-consuming. One or two standard-type letters have been tried and in England a new one has been devised which it is felt will provide added publicity (to that in existence) as well as saving time.

2. In view of the degree of cooperation operating amongst I.C.E.S. countries, it would be advantageous if the procedure of I.C.N.A.F. countries were reasonably standardized.
3. The following is a list of typical forms and items of publicity used in England or Scotland:
 1. Typical release list.
 2. Posters displayed on Fish Markets.
 3. Handbill explaining reasons for tagging.
 4. Small slip for inclusion in pay packets of market and processing plant workers.
 5. Small slip for inclusion in fishermen's pay packets.
 6. Forms for return of marked fish.
 7. Standard letter for acknowledging returns sent direct to the Laboratory.



APPENDIX VI

Canadian Tagging Publicity Methods

By F. D. McCracken
Fisheries Research Board of Canada
Biological Station, St. Andrews, N. B.

Agencies. Currently three laboratories on the Canadian Atlantic coast carry out groundfish tagging. These are: the Biological Stations of the Fisheries Research Board of Canada at St. Andrews, N.B., and St. John's, Newfoundland; and the Station de Biologie Marine, Grande Rivière, P. Q. Each laboratory carries out all facets of any particular tagging operation, using similar procedures. Each collects tags, information, and pays rewards for all tags regardless of origin. In addition, the Canadian Department of Fisheries, through its Officers and Inspectors, assists in collecting tags and forwarding them to the appropriate laboratory.

Advance publicity methods. There are a variety of methods used to spread advance information about groundfish tagging. Posters in English and French, prepared through ICNAF, have been distributed to many Canadian Atlantic fishing ports. Periodically, there is a redistribution to replace tattered or discarded posters and to increase coverage.

Letters describing where and when tagging has been carried out have been sent to Fishery Officers and to fishing masters of otter trawlers and larger line vessels. They have been asked to watch for tagged fish, return the tags, and provide the required information. In practice, the tags are usually returned directly by crew members rather than through the captain.

Radio broadcasts are also used to present propaganda, particularly through the medium of the CBC Fishermen's Broadcast. Personal contacts with fishermen are utilized to make them aware of the purposes of tagging, and to pass along information about current groundfish taggings, both Canadian and foreign.

Publicity efforts are irregular in timing. Usually we attempt to publicize new taggings but probably should continue a steadier stream of tag publicity material.

Collection methods. All our collection methods rely upon the fisherman voluntarily retaining the tag and if possible the tagged fish. Messages printed on the tag are designed to provide information which will allow him to return the tag to the laboratory of its origin. All tags used recently carry the address of one of the three Canadian laboratories. They also state that a reward will be paid for return of the tag. Usually the message is in English and/or French.

Field men of these Canadian laboratories contact fishermen periodically in search of tags. This method accounts for a large proportion of the tags returned and virtually all of the tagged fish. In areas of large landings or near the site of the tagging attempts are made to contact fishermen at relatively short intervals.

Officers of the Department of Fisheries stationed in the various Canadian ports also collect tags from fishermen. This provides a valuable addition to the efforts of the laboratories.

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It is particularly valuable for coverage in the ports with smaller landings.

We attempt to have all foreign tags recovered by Canadian fishermen sent to a Canadian laboratory rather than directly to the country concerned. We can then pay the reward and be sure that the tag is returned to the proper agency.

Information required. All advance publicity and continuing contacts with fishermen stress the need for complete information about each recaptured tagged fish. We ask that each tag return include exact location of recapture, date of recapture, depth fished, gear used, and name of fishing vessel. We also ask that the fisherman return the whole fish (from which we get length, sex, and otoliths). We do not ask that the fisherman measure or weigh the fish.

Although we request complete information about each tag return, we do not differentiate in our treatment of the finder between those giving complete, partial, or no information. The reward is paid and information about the tagged fish sent out so long as the tag is submitted. We believe that insisting on complete information before paying the reward could lead to fabrication of information.

Efforts of the field collectors are aimed at obtaining complete information. Interviews with fishermen turning in tags include questions about each of the items noted above. To assist the collector, we use tag reward receipt forms which list the information required (see sample).

Rewards. Currently the reward for the return of a groundfish or scallop tag is one dollar (\$1.00). If the groundfish is retained, it is paid for at the current market price (some consideration is being given to adding more inducement for saving the fish). There are no bonus or lottery schemes in use by Canadian laboratories.

Personnel of the Canadian agencies listed previously are authorized to make cash payments for tags. Field collectors are provided with special funds for this purpose. They make payments both to Canadian nationals and to foreign fishermen from whom they obtain tags.

Tags sent to the laboratories by Canadian nationals are paid for by cheque. There is a particular effort to ensure that tag rewards are paid without undue delay.

If Canadian tags recovered by other nationals are returned through their national agency, we assume that the reward has been paid per agreement ICNAF Annual Proceedings, Vol. 3, 1953. If a non-national fisherman or industry member sends a tag directly to one of the laboratories, copies of his letter and our reply are sent to the appropriate national agency so that the reward may be paid.

Occasionally Canadian shipping agents or suppliers will accept Canadian tags from non-nationals and pay the reward. These firms are reimbursed when the tag is returned.

Information released. Many fishermen appear to be most interested in learning about the movements and growth of the fish. Special efforts are made to see that this information is passed along. Field collectors are supplied with information so that they are usually able to tell each fisherman from whom they collect a tag approximately when and where the fish was tagged. If the tag

is listed on the records they have, they may be able to provide more precise information and include size as well.

Various methods are used to send out information to fishermen who return tags to the laboratories. Form letters and personal letters were the earlier methods. Recently maps showing position of tagging and position of recapture have been included. The most recent development is the use of a printed map with form letter over-printed to provide details of movement and growth.

To date it has not been customary to return tags to the fishermen. However, occasionally a fisherman will ask for the tag as a souvenir and we normally comply with his wishes.

Tagging results are eventually published to show the overall pattern of returns. Some of these publications are distributed to the most co-operative fishermen and those showing most interest. No attempt has been made yet to reach all fishermen with such formal publications. Wider coverage is sometimes attempted through publications in Trade Journals.

Fishermen and fish handlers who have been particularly co-operative in returning tags or tagged fish are thanked personally through an annual New Year's letter. Each letter states specifically how they have been of special assistance.

Information on Tagging, Spain

In answer to your letter of 21 April, 1959, I beg to inform you that the Spanish organization of the collection of fish tags is as follows:

1. All Spanish fishermen working in the ICNAF area are provided with the ICNAF tagging poster.
2. All these fishermen are especially instructed as to the procedure for the collecting and reporting of recaptured tags. A copy (1) of these instructions is attached.
3. The rewards to be paid for reports on recovered tags are indicated in the attached paper (2). They vary between 25-40 pesetas.
4. The above-mentioned instructions are regularly being distributed to the fishery authorities, the fishing industry and the crews of the fishing vessels.
5. A summary of tags collected by Spanish ^{fishing} vessels in the ICNAF area in 1958 is attached (3).

Manuel Sunico,
El Director General de Pesca.

Madrid 16 May, 1959.

Information on Tagging, Spain

Exhibit 2

Reporting of Tags, Rewards

The Sub-secretariat of the Marina Mercante (Direccion General de Pesca), has fixed a reward to be paid for collected tags. The size of the reward varies in accordance with the number of relevant data reported together with the tag, and as follows:

Reward of 50 pesetas.

Data to be provided with the tag

1. Name of vessel
2. Date of capture
3. Position of vessel when the capture was made
4. Depth
5. Name of fisherman
6. Description of the tag: inscriptions, colour, material, form and kind.
7. Gear
8. Length of fish from tip of snout to end of tail-fin
9. Delivery of otoliths
10. Weight of fish

Reward of 40 pesetas:

the tag + the above-mentioned data 1-8
or
the tag + data 1-7 and 9.

Reward of 30 pesetas:

the tag + data 1-7.

Reward of 25 pesetas:

the tag + data 1-6.

Information on Tagging, Spain

Exhibit 1.

Instructions for the Captains of Vessels fishing in the ICNAF Area.

a. When the captains bring foreign tags of fish captured for the laboratories they shall, when reporting their arrival in a Spanish port, deliver a signed declaration including the following information on the tags:

Name of the person who has collected the tag; name of vessel; date; position and fishing depth; gear; length of fish from the tip of the snout to the end of the tail-fin; if otoliths are delivered or not.

Also shall be described the tag: inscription, color, material and form.

Further shall be indicated the date when the mark is delivered, and the office which has received it, also if a reward for the tags was paid, and if so, to what amount.

b. If the tags are reported to the Spanish port authorities the captains are to give a similar signed declaration indicating the data mentioned in the first paragraph of (a).

APPENDIX VIII to Document No. 39

Note on Extra Rewards for Returned Tags

by G. Rollefson

Norway pays, in general, 5 kroner for a returned tag. However, information received from the fishing districts pointed out that several tags were retained by the fishermen, probably due to the fact that the amount of 5 kroner does not compensate for the troubles connected with writing and mailing.

To awaken the interest of the fishermen and to urge them to return tags as soon as possible, Norway has introduced a scheme based upon extra rewards for returned tags.

Among the tags returned in one year three tags chosen at random will have extra rewards of 1000, 500 and 250 kroner. The scheme is publicized by means of posters, newspapers and radio broadcasts, and the rewards are announced in the newspapers and on the radio.

