FISHERY EDUCATION IN SENIOR HIGH SCHOOLS*

by

S. Danno
Chairman of Fisheries Section,
All Japan Senior High School
Principals Association

ABSTRACT

The paper discusses the objects of fishery education, outlines the courses of study for both regular and postgraduate operations and defines the areas of employment for trainees.

OBJECT OF FISHERY EDUCATION

The senior high school in Japan conducts, on the basis of the results of education in the junior high school, advanced general and special education so as to meet the development of body and mind of students. The object of fishery education in senior high schools is, through various courses in fisheries, to impart to students special knowledge and technique of fisheries necessary for the improvement of fishing industry and to bring up leading fishery technical experts in Japan.

COURSES AND SUBJECTS OF STUDY

Fishery education in senior high schools is conducted in their regular and postgraduate courses, and the term of regular course is 3 years and that of postgraduate course is 2 years.

The branches of the regular course comprise fisheries, fish processing, fish culture, fisheries management, engineering and radio communication. The special subjects of the curriculum include fisheries in general, aquatic animals and plants, marine meteorology, fishing industry, fishing boats, navigation, nautical instruments operation, sea laws, fisheries regulations, aquatic products manufacturing regulations, fisheries chemistry, marine micro-organisms, refrigeration,

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cold-storage, boilers, fish culture, fisheries engineering, fisheries management, book-keeping, fishing boat engine, designing of engines, fishing boat electric machinery, theory of tele-communication, radio measuring, radio machinery, radio communication, communication regulations, outline of marine affairs, traffic geography, practical exercise on the sea, general practices, practical exercise on fishing boat, and practical exercise with engines.

REGULAR COURSE

a. Fisheries Branch

The object of this branch is to impart to students knowledge and technique relating to fisheries in general and navigation, and to train fishery experts who will become the backbone of the Japanese fishing industry.

As educational facilities, this branch is provided with training boats of large, medium and small sizes (over 150, 60 and 30 tons), and with cutters (9 meters in length carrying 12 men), motor boats, Japanese boats, fisheries training places, instruments of navigation, and marine meteorological observatory rooms equipped with training and experimental apparatus.

b. Fish Processing Branch

This branch has for its object to impart to students knowledge and technique of processing aquatic products, and to train technicians proficient in processing and manufacturing aquatic products.

The important educational facilities for this branch comprise training plants for processing, ice plants, freezing plants, and laboratories of fisheries chemistry, aquatic animals and plants, aquatic micro-organisms.

c. Engineering Branch

The object of this branch is to impart to students knowledge and technique relating to the operation, running and repair of fishing boat engines and general knowledge of machine industry, and to train technicians who go on board fishing boats and engage in the business of fishery production.

Necessary facilities for this branch include plants for general engineering, drafting rooms, model rooms, Diesel engines, generators, electric motors, machine tools and material testers.

d. Radio Communication Branch

This branch is designed impart to students knowledge and technique relating to transmitting and receiving of radio communication and operation and repair of machinery, and to train technicians who go on board fishing boats as radio operators.

The educational facilities of this branch comprise training rooms for transmitting and receiving, type traffic geography rooms, machinery rooms, testing radio stations, transmitters of medium long-wave, short wave and medium wave types, weather facsimilies, copies, typewriters, etc.

e. Fish Culture Branch

The object of this branch is to give students correct understanding of the importance of propagation work in fishing industry, impart knowledge and technique necessary for promoting the productivity of coastal fisheries, and to train technicians proficient in fish farming.

The necessary facilities for this branch are laboratories of fishes, aquatic plants and biochemistry, fish farming experimental stations, fish ponds, fishery construction training rooms, specimen rooms of aquatic animals and plants, microscopes, water testers, and experiment equipment and machinery.

POSTGRADUATE COURSE

The postgraduate course is designed to impart advanced knowledge and technique to the graduates of fisheries, engineering and radio communication branches of fisheries senior high schools and give them practical training in sea service so that they may obtain certificates of competency in seamanship, engineering or radio communication (Grade A second mate, engineer or radio operator) and may become proficient men in the operation of fishing boats.

NUMBER OF SCHOOLS AND STUDENTS

The number of fisheries senior high schools has now reached 55. All of them were established and are being managed by local public entities. Seventeen schools are of combined course type and have branches of fisheries, engineering and radio communication, while other 38 schools are of single course type and have only one branch.

With regard to the 52 senior high schools having postgraduate courses, 29 of them give lessons in fisheries, 17 schools, lessons in engineering and 6 schools, lessons in radio communication. The present number of students taking the regular course is 19,794, of which 747 are girl students who take lessons in fish processing, fish culture or radio communication. The number of stucents now taking the postgraduate course is 751.

EMPLOYMENT OF GRADUATES

A. *Graduates of Regular Course*

Graduates of Fisheries Branch generally find employment in companies concerned with fisheries and transportation, fisheries companies on land, fisheries organizations and government and public offices.

Graduates of Fish Processing Branch are employed in companies concerned with fisheries, cold-storage and refrigerating companies, companies manufacturing liver oil and chemicals, confectionery companies, general food processing companies and government and public offices.

Graduates of Engineering Branch find employment in companies concerned with fisheries and transportation, companies manufacturing ship engines and electric machines, other general machine shops and government and public offices.

Graduates of Radio Communication Branch are employed in companies concerned with fisheries and marine transportation, Coast Bureau, Radio Broadcasting Station, aviation companies, companies manufacturing electric communication machines and government and public offices.

Graduates of Fish Culture Branch find employment in fish farms, companies concerned with pearl culture and other fish cultues, general fisheries companies and government and public offices.

B. *Graduates of Post-graduate Course*

Graduates of post-graduate course generally go on board fishing boats and other marine transports having the status of officers of fisheries, engineering or radio communication.

The following shows the percentages of places of work for the graduates of regular and postgraduate ccurses of senior high schools:

1) Graduates of Fisheries, Engineering and Radio Communication Branches.

Work relating to ships 60%
(fishing boats ..... 60%; merchant ships ..... 40%)

Work relating to other fisheries companies 25%

Students in Universities 10%

Independent business 5%

2) Graduates of Processing and Fish Culture Branches.

Most of them are employed in land based companies, the percentage of those employed in fisheries companies being 50% and that of other companies 40%.

3) Graduates of Postgraduate Course

Almost all of them are employed in companies or businesses relating to shipping, the percentage of those employed in fishing and merchant-shipping companies being fifty-fifty.