

SOUTH PACIFIC SKIPJACK

Data Needs

The important questions that need to be decided in relation to data are:

- (a) What data are needed for various purposes (stock assessment, etc.)?
- (b) What data are currently being collected, and what improvements are needed, if any?
- (c) What arrangements, if any, are required for central compilation, processing and dissemination of data?

Apart from special biological and research data (egg and larval studies, tagging, etc.), the basic data requirements are simple - essentially the weight caught, the effort used in catching it, and the sizes of fish caught. This, however, leaves open the question of with what detail and precision these data should be collected and compiled. The area information must be detailed enough for catches to be ascribed to particular stocks. Since the stock structure is not yet known, this means that quite detailed area data should be collected so that catches can be grouped according to the stock structure once this is established. However, skipjack is a mobile animal, so that presumably locally-based short-range vessels exploit only a single stock, and it is not essential to have their catch data according to area. On the other hand, area data are needed for the long-range fleets; 5° squares would seem adequate. In addition area data finer than the stock level are often useful in studying some of the detailed interactions between the stocks and the fishery, but these data are mainly used for local national studies, and probably do not need to be internationally available.

The commonest time breakdown in international statistics is the year, but this may be long for skipjack. Would a shorter period (one or six months) add to usefulness without increasing the work too much? A breakdown by gear and vessel type is often useful, especially in estimating total effort, and is presumably desirable for skipjack. The actual classification to be used, which should not be too complicated, should be defined, and should follow as far as possible existing classifications, e.g., those of FAO/CWP.

The precision to be aimed at in data collection is seldom explicitly discussed, the implicit assumption seeming to be that data (at least of catch statistics) should be exactly correct. This is, of course, impossible even for large-scale industrial fisheries with detailed commercial records. For artisanal fisheries complete records may be virtually impossible to collect, and in any case be very expensive. For these a careful choice of precision to be aimed at in relation to ultimate requirements and cost of collection needs to be made.

A final characteristic of data that should be examined is timeliness. Even good data are of little practical value if by the time they are available and analysed, and advice given to decision-makers, the opportunity to take effective action, e.g., to correct possible overfishing, has passed. The actual timing depends on the speed with which events change in the fishery, and with which decisions can be taken and implemented. Skipjack are relatively short-lived, and at least recently the fishery has been changing rapidly. This suggests a fairly urgent time-schedule, e.g., basic data for 1976 should be generally available at least not later than mid-1977.

Current status

Skipjack fishing in the South Pacific is carried out by three somewhat distinct groups of fisheries, with somewhat different performances and problems in relation to data. These are the long-range Japanese fishery; joint ventures based in various developing countries in the region, with the major participation by developed countries, especially in finance, operational management, and marketing; and purely local fisheries. The catch data of the first two groups which account for the bulk of the present catch seem to be in satisfactory shape, although the detailed data on the Japanese fishery do not become available for some time. FAO has been able to sponsor a careful review by Dr. Klawe of I-AFTC of tuna statistics, giving particular attention to the 1974 figures. In some cases his estimate, taking full account of unofficial and unpublished data, differed appreciably from the official figures reported to FAO, and published in the Yearbook of Fishery Statistics. For the western Pacific skipjack these discrepancies were only minor, the Yearbook figures being 99%, 93% and 97% of Klawe's figures for areas 61, 71 and 81 respectively. The main differences were the estimates obtained by Klawe for the local catches in Indonesia, the Philippines and the Trust Territories. The situation is therefore reasonably satisfactory, though there is room for improvements.

The main problem is that all the data is not available in one place (other than the crude summary in FAO's Yearbook). The meeting needs to decide what needs to be summarized centrally, who does it, who (possibly the same individual/institution) chases after the existing shortcomings.