

ESTIMATES OF 1985 ACCEPTABLE BIOLOGICAL CATCH (ABC)
FOR "REMAINING ROCKFISH"
IN THE VANCOUVER AND COLUMBIA AREAS

In 1983 the Council established a special grouping of rockfish called the Sebastes complex for the combined Vancouver and Columbia areas and developed a special management strategy for this complex. The complex includes all rockfish managed under the FMP except widow rockfish, shortbelly rockfish, thornyhead rockfish and Pacific ocean perch.

The Sebastes complex has three components; yellowtail rockfish, canary rockfish and "remaining rockfish." Estimates of ABC were calculated for yellowtail rockfish, canary rockfish, and "remaining rockfish" for each management area. The component ABC's for the Vancouver and Columbia areas were then summed to form a composite Sebastes complex ABC for the combined Vancouver/Columbia areas in 1983 and 1984. Yellowtail and canary rockfish status of stocks reports which develop estimates of 1985 ABC's are presented as separate documents. This report provides estimates of 1985 ABC's for the "remaining rockfish" in the Vancouver and Columbia areas.

The "Remaining Rockfish" category is comprised of many species of rockfish which, individually, are of minor commercial importance but as an aggregate produce large landings. Thus the FMP sets an aggregate ABC rather than an ABC for each of the species in this category.

Very little is known about these minor species and no biological data are available to assess the status of stocks. The FMP originally set the ABC for "Remaining Rockfish" at $1.2 \times$ the catch in 1977 to allow for growth of fisheries on species or stocks which were lightly exploited. New ABC's were set in 1983. This report updates a reevaluation of the "Remaining Rockfish" ABC's which was completed in 1983 ✓

VANCOUVER AREA

Total rockfish landings in the Vancouver area increased from 458 mt in 1973 to over 8600mt in 1982 (Table 1. and Figure 1.). During the same period the landings of "Remaining Rockfish" also increased until 1979 but have fluctuated since. The reasons for the fluctuation is not clear but is at least partially the result of unexplained variable availability of some species in the complex, and changes in fishing patterns when trawlers started using midwater trawls for widow rockfish.

1. Groundfish Management Team, 1983. Estimates of Acceptable Biological Catch for Remaining Rockfish. November, 1983.

Table 1. Vancouver Area Rockfish Landings

Year	Remaining Rockfish	Total Rockfish	Remaining RE Total RF
1973	49	458	0.11
1974	33	473	0.07
1975	48	1031	0.05
1976	119	1952	0.06
1977	1195	4127	0.29
1978	1371	4463	0.31
1979	1372	4342	0.32
1980	580	3418	0.17
1981	539	6005	0.09
1982	562	8605	0.07
1983	1308	6791	0.19

Source

WDF Tech. Rpt 68
 WDF TSC Rpts. 1980-1983
 ODFW TSC Rpts. 1978-1983

Total rockfish landings and total rockfish effort have exhibited very similar patterns during the last ten years (Figure 2). "Remaining Rockfish" landings also followed the trend until 1981 when landings continued a downward trend while total rockfish effort increased sharply. In 1983 "Remaining Rockfish" landings increased but total rockfish landings and total effort declined.

"Remaining Rockfish" species are usually caught incidentally by trawlers which are targetting on the more commercially important species such as yellowtail and canary rockfish. The most likely explanation for the decrease in landings of "Remaining Rockfish" during a period of increased effort and an increase in the total rockfish landings is decreased abundance and availability of the species in the "Remaining Rockfish" component. The increase in "Remaining Rockfish" landings in 1983 was primarily due to larger landings of silvergray rockfish (*Sebastes brevispinus*). It should be noted that the increase in effort included midwater trawling. It is probable that most of the "remaining rockfish" are less vulnerable to midwater trawls than to bottom trawls which have been traditionally used in this area. Although rockfish prices were low during part of this time period, markets were purchasing record quantities of rockfish. There is no evidence to suggest that the "Remaining Rockfish" were not marketable. Landings of these species from the Columbia area increased significant during this period and ex-vessel values were generally similar other rockfish.

No biological data are available for these species with which to undertake a comprehensive stock assessment of "Remaining Rockfish". The effort and landing data do not provide a good indication of the status of these species. Accordingly the GMT believes that the 1985 ABC for "Remaining Rockfish" in the

Vancouver area should be set at 800mt- the average 1981-1983 landing. This value allows for fluctuations in landings while recognizing that the biological condition of these stocks is unclear and that landings have stabilized or decreased after a rapid increase from 1973 to 1979.

COLUMBIA AREA

In contrast to the Vancouver area, "Remaining Rockfish" landings in the Columbia area have increased each year since 1980 (Table 2). Total Rockfish landings nearly tripled during the same period and the ratio of "Remaining Rockfish" landings to total rockfish also increased (Table 2 and Figure 3).

Table 2. Columbia Area Rockfish Landings

Year	Remaining Rockfish	Total Rockfish	Remaining RE Total RF
1979	2296	14827	0.15
1980	1746	26072	0.07
1981	3119	30992	0.10
1982	3770	22547	0.17
1983	4137	17970	0.23

Source

- WDF Tech Rept. 68
- WDF TSC Repts-1980-1983
- ODFW TSC Repts-1979-1983

No biological data are available for these species with which to undertake a comprehensive stock assessment nor are other types of direct observations on the status of "Remaining Rockfish"

Landings of yellowtail rockfish, canary rockfish and widow rockfish comprise the majority of total rockfish landings in the Columbia area. Yellowtail and widow rockfish populations are below levels which can produce MSY. Canary rockfish landings have been above ABC for several years and stocks have been reduced to near MSY levels. Further, stocks of Pacific ocean perch (POP) were depleted in the late 1960's and have not recovered.

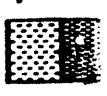
The "Remaining Rockfish" complex is apparently comprised of small populations of many species. There is no evidence that large underexploited stocks of species within this aggregate are available. Thus it is likely the increased effort which harvested widow rockfish, canary rockfish, yellowtail rockfish and POP, the major traditional target species, may also have impacted many species of "remaining rockfish" caught incidentally.

In order to prevent overharvest of the "Remaining Rockfish" complex an 1985 ABC is set at 3700mt--the average 1981-

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1983 landing. This ABC will allow landings to continue at about current level until more definitive data are available on the condition of these stocks.




 TOTAL ROCK
 "RFM ROCK"
 FIGURE 1 VANCOUVER AREA ROCKETISH LANDINGS

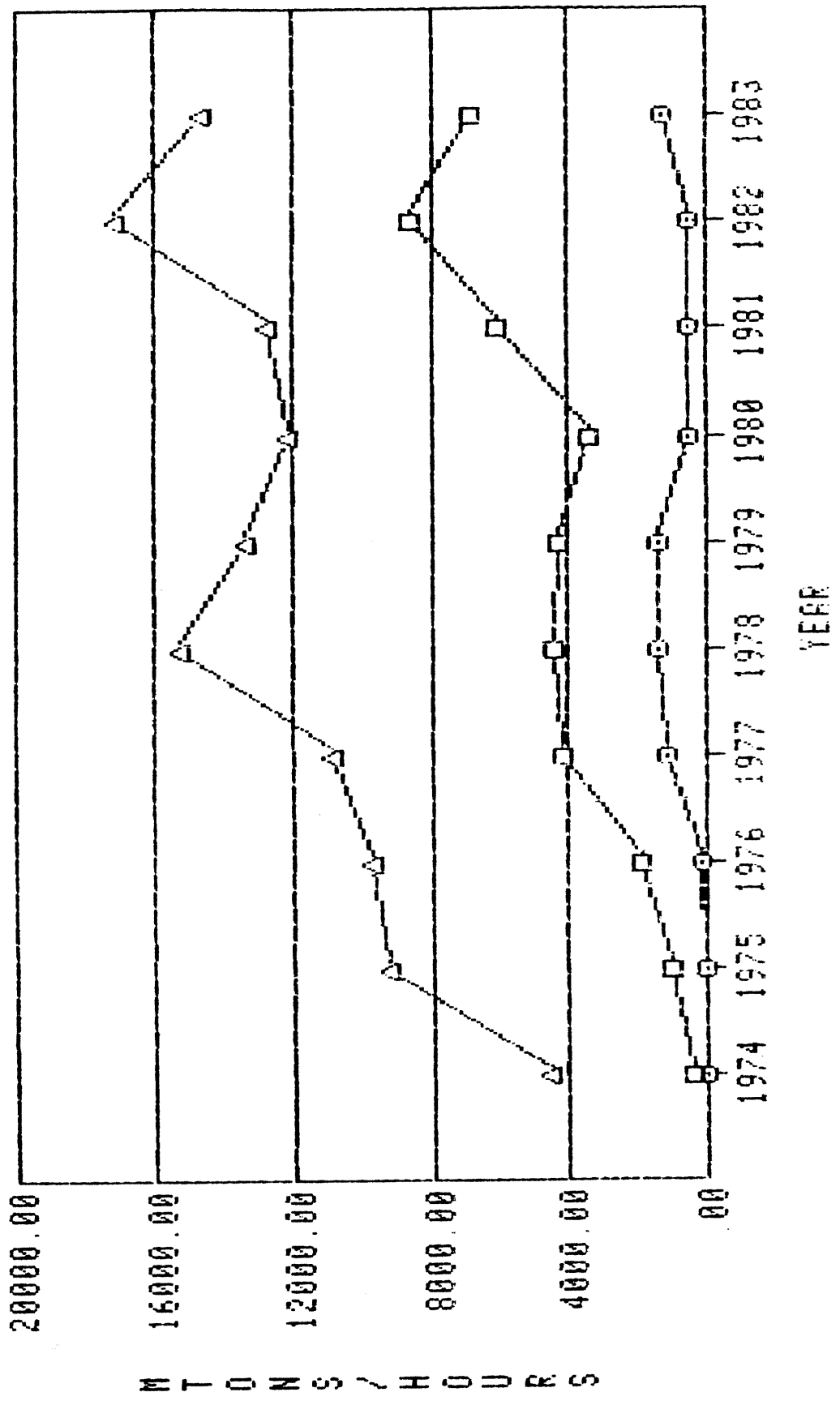
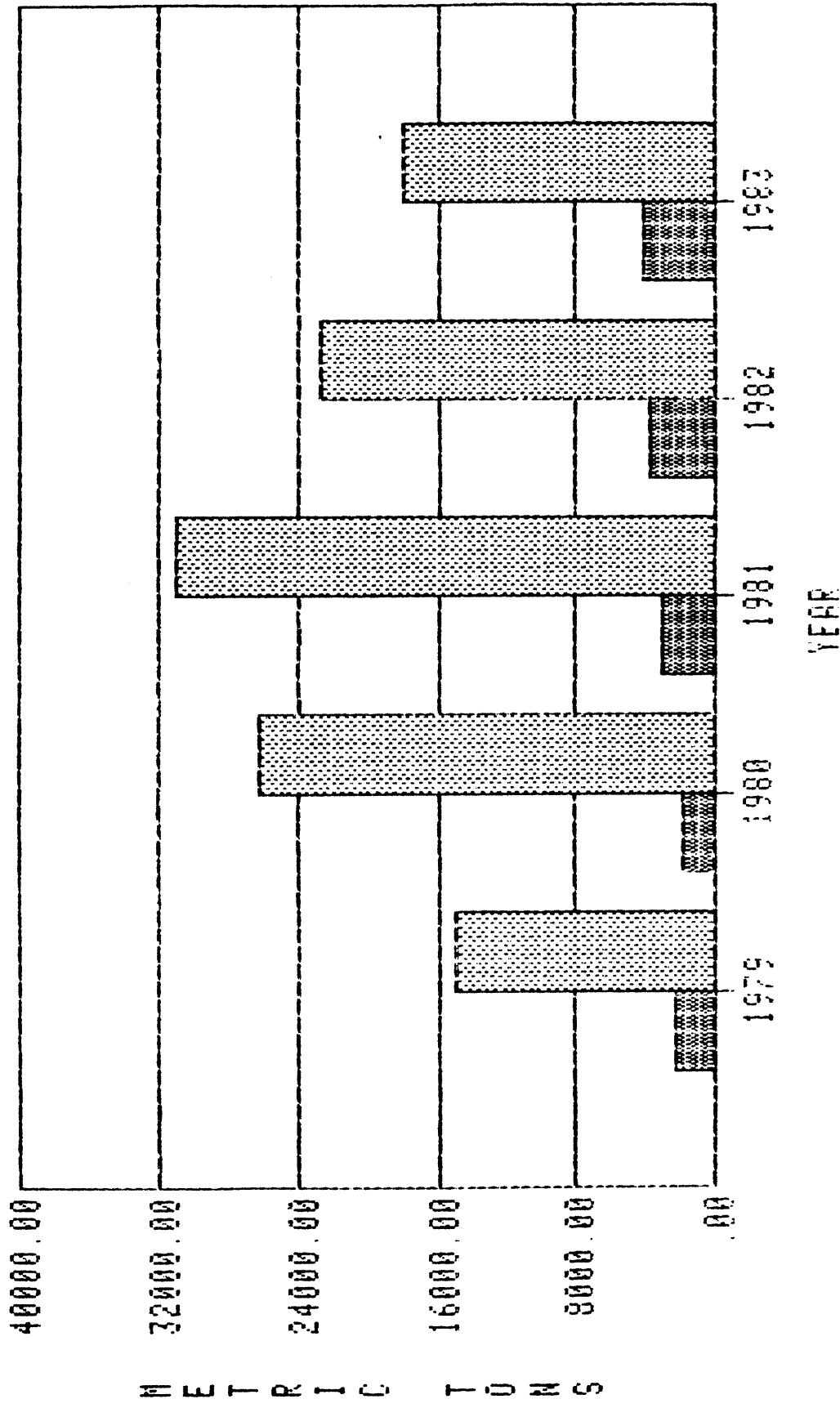


FIG. 2. VANCOUVER AREA ROCKFISH LANDINGS AND EFFORT

▲---HOURS
 □---TOTAL ROCK
 ○---REM ROCK



TOTAL ROCK

 "REN ROCK"

FIGURE 3. COLUMBIA AREA ROCKFISH LANDINGS

