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A NOTE ON THE NUMBER OF FISHING VESSELS IN HAWAII

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Recently, in association with attempts by the Western Pacific Regional Fishery Management Council (Council) to prepare a billfish fishery management plan, a question has arisen on whether there has been an increase in domestic fishing effort for billfish (marlins and swordfish) over the period 1979-81. In this note we present some data on the number of vessels in Hawaii as a rough measure of domestic fishing effort.

In cooperation with the Honolulu Laboratory (HL), the Council assembled landing data from select Hawaiian wholesale fish dealers and auction enterprises. These data showed unequivocally that there was a substantial increase in landings of all billfishes combined (34.6%), mahimahi, Coryphaena hippurus, (59.5%), and wahoo, Acanthocybium solandri, (133.2%) over the period 1979-81. The Council's view was that this increase in landings resulted from the cessation of foreign tuna longline fishing within the fishery conservation zone in April 1980 following the implementation of the billfish preliminary fishery management plan.¹ The HL staff maintained that such was not necessarily the case, and that domestic fishing effort statistics would have to be examined to clarify the situation. For instance, the placement of fish aggregating devices by the State in the same year that the plan went into effect may have increased fishing effort and contributed to the increased landings of mahimahi and wahoo.

To provide some information on the subject, we assembled available summaries of the number of vessels documented by the U.S. Coast Guard and registered by the Hawaii Department of Transportation. Because neither documented nor registered vessels are classified in such a manner that commercial fishing vessels can be assigned to specific fishing categories or that "pleasure" boats are used for fishing at all, the data presented below provide only the crudest estimates of fishing effort for billfishes, mahimahi, and wahoo.

The U.S. Coast Guard does not release annual summaries, but they did provide us with an in-house summary covering several years including those for years of interest here (Table 1). For the period 1979 through 1981, the number of vessels increased by 30.1% for commercial fishing vessels, 15.8% for charter fishing vessels, and 13.3% for pleasure vessels.

The Hawaii Department of Transportation does release annual summaries of vessels registered in Hawaii by usage categories (as well as by propulsion, hull material, and type of vessel), and these summaries were used to construct Table 2. For the period 1979-81, there has been an 11.5% increase in commercial fishing vessels, a 20.8% decrease in charter fishing vessels, and a 3.0% decrease in pleasure vessels.

¹Western Pacific Regional Fishery Management Council. n.d. Assessment of changes in the domestic fisheries for select pelagic species based on a survey of major fish dealers and auction houses for 1979, 1980, and 1981. Mimeogr., 12 p.

Table 1.--Number of vessels documented by the U.S. Coast Guard in Hawaii by usage categories. The total is for the three categories given plus passengers, freight, towing, and miscellaneous.

Year	Vessels			Total
	Pleasure	Commercial fishing	Passenger and fishing (including charters) ¹	
1967	176	53	52	416
1977	489	101	122	895
1979	513	113	165	990
1980	574	134	178	1,101
1981	581	147	191	1,141

¹This usage category seems to be entirely charter fishing boats.

Table 2.--Number of vessels registered by the Hawaii Department of Transportation by usage categories. The total includes the three categories given plus commercial passenger, other commercial, livery, dealer, manufacturer, youth group, government and other.

Year	Vessels			Total
	Pleasure	Commercial fishing	Charter fishing	
1971	8,108	364	6	8,803
1972	9,424	430	6	10,250
1973	11,139	519	11	12,049
1974	10,753	582	9	11,843
1975	11,736	683	11	12,956
1976	11,893	760	11	13,130
1977	11,845	826	10	13,165
1978	12,192	929	21	13,695
1979	12,097	1,004	24	13,678
1980	11,785	1,038	17	13,459
1981	11,734	1,119	19	13,405

Table 3.--Number of documented and registered vessels in Hawaii by usage categories.

Year	Vessels			Total
	Pleasure	Commercial fishing	Passenger and fishing (including charters)	
1977	12,334	927	132	14,060
1979	12,610	1,117	189	14,668
1980	12,359	1,172	195	14,560
1981	12,315	1,266	210	14,546

Combining both documented and registered vessels (Table 3), there has been an 8.1% increase in commercial fishing vessels, an 11.1% increase in charter fishing vessels, and a 2.3% decrease in pleasure vessels.