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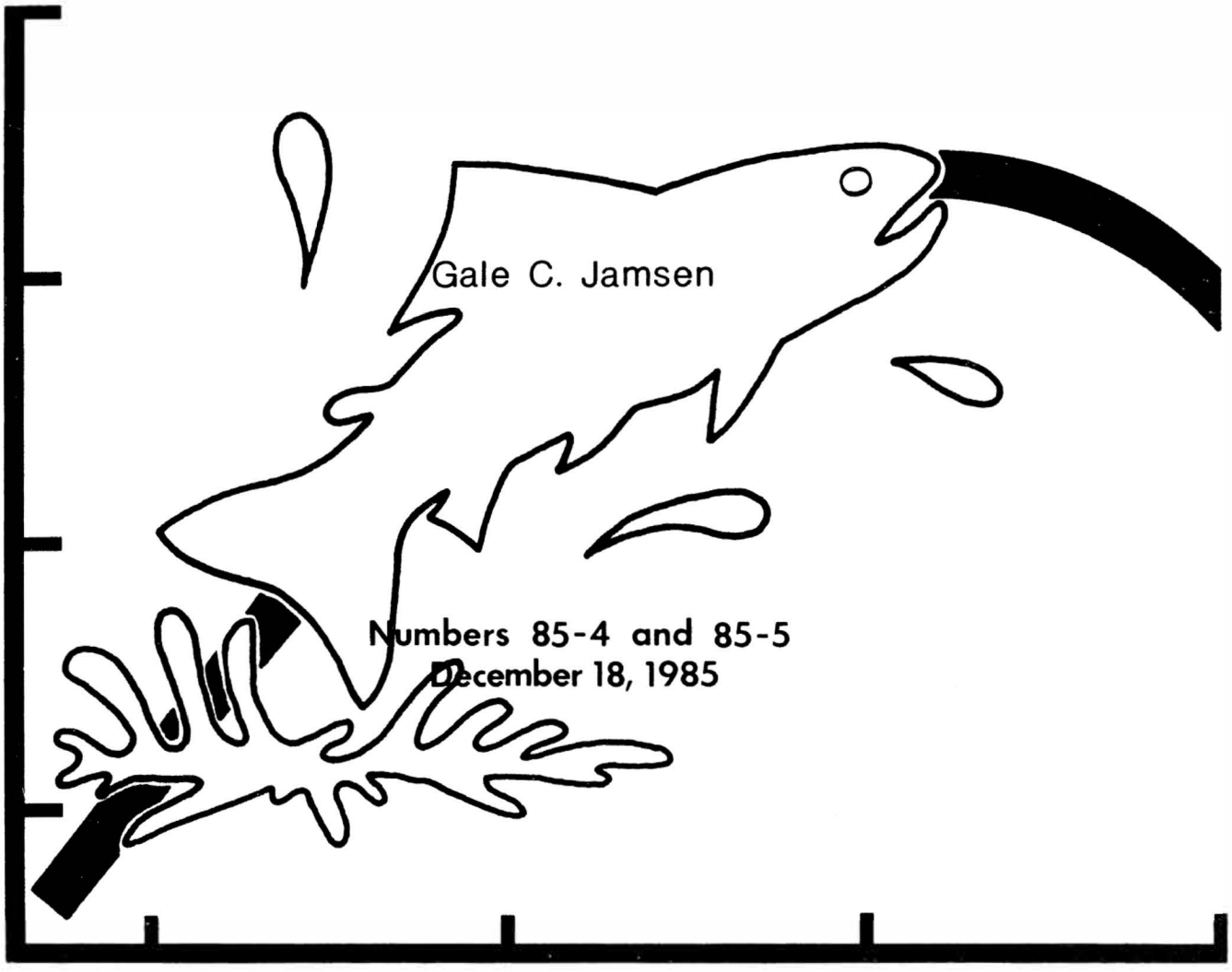
FISHERIES DIVISION

TECHNICAL REPORT

Michigan's 1981 and 1982 Sport Fishery



Gale C. Jamsen

Numbers 85-4 and 85-5
December 18, 1985

Michigan Department of
Natural Resources

MICHIGAN DEPARTMENT OF NATURAL RESOURCES
FISHERIES DIVISION

Fisheries Technical Reports No. 85–4 and No. 85–5
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Gale C. Jamsen[1]

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[1]A contribution of Federal Aid in Fisheries Restoration, Michigan Project F-40-R.

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MICHIGAN'S 1981 SPORT FISHERY

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SUMMARY

In 1981 licensed anglers spent approximately 23.4 million days fishing in Michigan. Great Lakes fishing (all species) and anadromous salmonid fishing accounted for approximately 38% of the total effort or about 9 million angler days. Inland lake and stream fishing accounted for nearly 14.4 million angler days.

INTRODUCTION

In 1981 a stratified sample of licensed anglers was questioned by mail about their sportfishing activity. The survey objective was to assess benefits in angler days resulting from recreational fishing in Michigan by location and type of fishing.

SURVEY PROCEDURES

The survey samples were selected for the first time from computer files listing nearly 1.4 million licensed anglers. Spouses of resident license holders and young people under 17 years of age were again excluded because they did not need to purchase licenses. The survey sample was stratified by residence to obtain better estimates of angling in the northern region of the state. Residents of Minnesota, Wisconsin, and Michigan, with zip codes ranging from 49701 through 49972, were sampled randomly at a 4% rate. The second stratum was formed from a 2% random sample of the remaining license holders.

SURVEY RESULTS

Estimates of sportfishing effort (angler days) were stratified by Fisheries Management District (Fig. 1) and Great Lakes (Tables 1 and 2). They continue to serve as an index of program benefits provided by fisheries management in Michigan.

In the past, catch estimates also were presented. However, since upward bias is believed to be significant in the mail survey catch estimates, field interviews (Great Lakes monitoring program) are now being used for determining catch rates. If the bias in mail survey catch can be assumed constant across species groupings, some observations can be made about its composition.

For the state as a whole, salmon accounted for 69% of the Great Lakes open-water salmonid catch with nearly equal numbers of coho and chinook salmon represented. Lake trout, steelhead, and brown trout accounted for 19%, 7%, and 5% of the total, respectively. Yellow perch, walleye, and panfish comprised 72%, 10%, and 9%, respectively, of the non-salmonid catch from the Great Lakes.

Inland lake fishing accounted for 73% of the estimated 14.4 million angler days of total inland fishing. About 50% of the inland fishing occurred in the southern one-half of the Lower Peninsula where 88% of the population reside. Panfish (bluegill, sunfish, crappie, etc.), perch, and bass comprised 62%, 20%, and 6% of the inland lake catch, respectively. The remainder of the catch consisted mostly of northern pike, walleye, trout, bullhead, suckers, and carp.

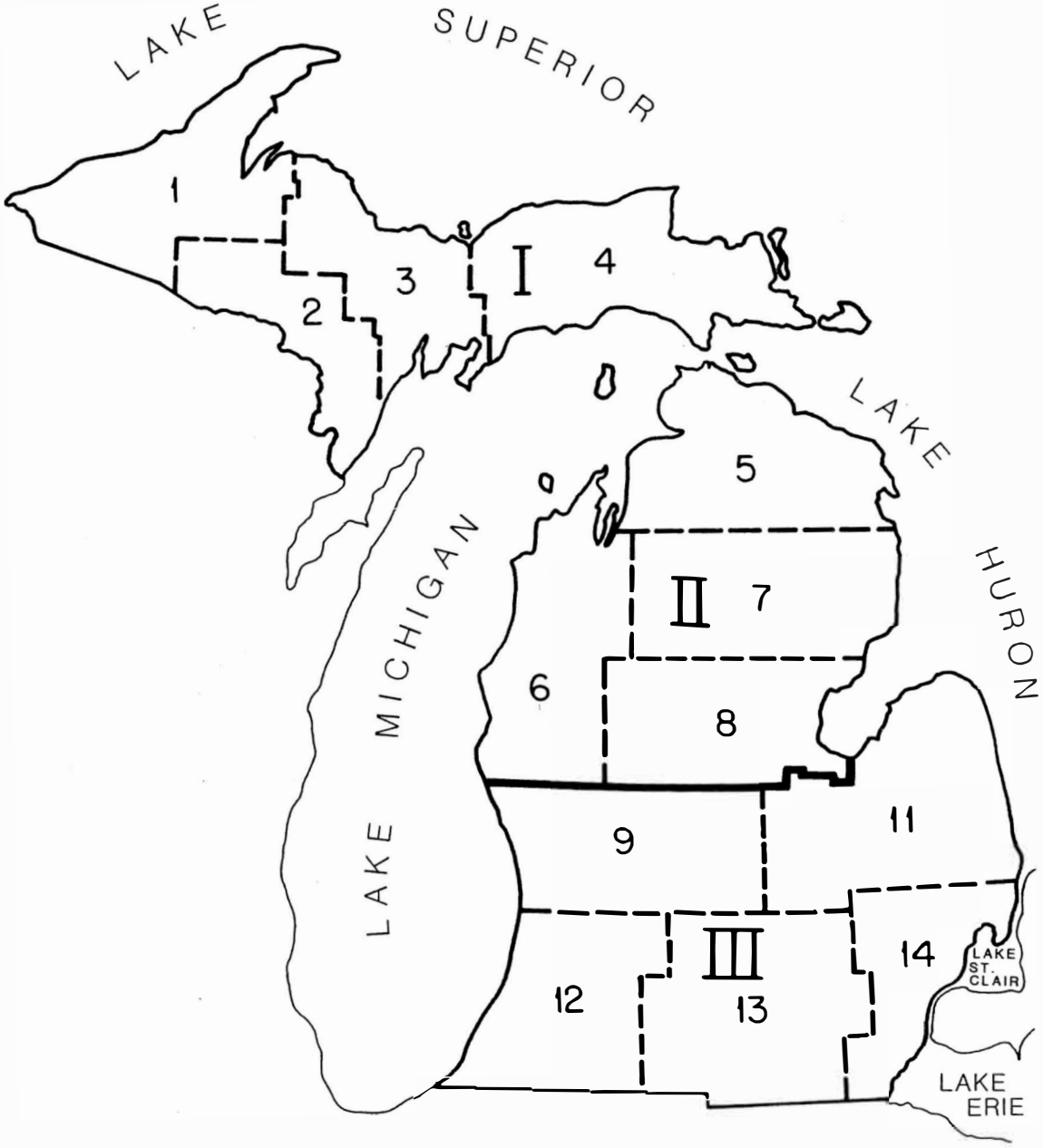

Figure 1. Michigan fisheries management regions (I-III) and districts (1–14).

Table 1. Estimated angler days (thousands) of fishing effort by management district and type of fishery, 1981.

	Great Lakes			Inland		
District	Salmonid	Anadromous	Non-salmonid	Trout	Non-trout	Total
1	122	62	20	142	298	644
2	22	10	14	74	287	407
3	108	49	213	163	247	780
4	70	29	364	93	335	891
5	147	147	127	242	1,072	1,735
6	798	703	235	417	1,599	3,752
7	233	186	207	465	1,286	2,377
8	75	35	317	168	911	1,506
9	392	274	285	176	1,142	2,269
11	166	18	1,138	9	587	1,918
12	403	201	99	180	1,924	2,807
13	8	15	428	62	1,367	1,880
14	28	4	1,243	56	1,083	2,414
Total	2,572	1,733	4,690	2,247	12,138	23,380

Table 2. Angler days (thousands) of fishing effort for Great Lakes fish by lake and watershed, 1981.

Location	Salmonid	Non-salmonid	Stream salmonid	Total
Lake Michigan	1,730	906	1,328	3,964
Lake Huron	554	1,305	275	2,134
Lake St. Clair	59	1,892	1	1,952
Lake Erie	9	513	12	534
Lake Superior	220	74	117	411
Total	2,572	4,690	1,733	8,995