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FISH COMMISSION OF OREGON
TRAWL INVESTIGATION

Report of Cruise 68-4, Dover sole

Vessel: MW Sunrise, chartered trawler.

Date: April 17-18, 21-22, and 29, 1968.

Objectives: (1) To tag Dover sole for scale and aging studies; and
(2) to evaluate the FD-67 anchor tag for tagging juvenile
Dover sole.

Methods: Tags used were FD-67 anchor tags (Floy Tag and Mfg. Co.,
Seattle, Washington) and 5/8-inch Petersen disc tags. Fish
were measured to the nearest millimeter. Scales were taken
at tagging and placed in numbered vials containing a
solution of 15% isopropyl alcohol.

Gear used was a small fish trawl of 2½-inch mesh
(stretched measure) in the wings, body, and intermediate
and 1½-inch mesh in the cod-end. Each wing was connected
to its respective otter door by a 68 foot bridle. Foot
rope and head rope measures were 62 and 47 feet respectively.

This tagging study which began in November 1967 was
not completed until April 1968. Data from the
December 18 cruise (67-12) is also included in this
report so that all pertinent data will be under one cover.

Results: There were 1,494 fish tagged. Of these 727 were
tagged with anchor tags only, 272 were tagged with anchor
tags and Petersen discs, and 495 were tagged with Petersen
discs only. Table 1 gives tow data and numbers of fish
tagged per tow.

Table 2 shows the length-frequency of fish tagged by tag type. Nearly 76% of the fish tagged with anchor tags only and anchor tags plus Petersen discs were of sublegal size (<28 cm). Only 32% of fish tagged with Petersen discs only were of sublegal size.

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Table 1. Tow data and number of fish tagged per tow.

Tow no.	Date	Length of tow (min.)	Loran (2H4)	Depth (fms)	Number tagged
1	11-21-67	30	3468-3452	47	26
2	"	23	3452-3460	54-58	20
3	"	30	3470-3448	50	16
4	"	30	3475-3488	45-40	3
5	"	42	3475-3460	46-48	12
6	11-22-67	30	3435-3418	46-47	21
7	"	30	3400-3380	46-47	2
8	"	30	3385-3392	46-47	10
9	"	15	3382-3389	50	17
10	4-17-68	22	3455-3450	40	178
11	"	10	3430-3435	43	91
12	4-18-68	16	3450-3458	41	199
13	4-21-68	16	3470-3460	41	247
14	"	15	3436-3440	40-41	157
15	4-22-68	30	3810-3815	170-190	149
16	"	31	3812-3822	200-175	50
17	4-29-68	20	3445-3450	42	147
18	"	21	3444-3450	45	149
19	"	10	3452-3457	42	

Table 2. Length-frequency of Dover sole tagged by tag type.

Length (mm)	FD-67 anchor tag only	Petersen disc and anchor tag only	Petersen disc only	Total
16	1			1
17	1			1
18	14			14
19	48			48
20	64			64
21	81			81
22	83			83
23	88	3	11	102
24	72	14	29	115
25	83	25	34	142
26	62	45	43	150
27	29	42	43	114
28	28	42	29	99
29	16	39	37	92
30	16	20	33	69
31	14	14	19	47
32	6	10	30	46
33	4	5	18	27
34	4	6	23	33
35	4	3	23	30
36	4	2	16	22
37	2		24	26
38	1	1	10	12
39			9	9
40			7	7
41	1		5	6
42			7	7
43			4	4
44			7	7
45			6	6
46			4	4
47			2	2
48			1	1
49			4	4
50			4	4
51			2	2
52				
53			1	1
54			1	1
55			1	1
56			3	3
57			1	1
58			3	3
Unknown	1	1	1	3
Total	727	272	495	1,494