State of California - The Resources Agency
Department of Fish and Game
Marine Resources Operations
California State Fisheries Laboratory
Terminal Island, California

CRUISE REPORT 69-S-3

PELAGIC FISH AND TRAWLING SURVEY OF SANTA BARBARA OIL SPILL

Prepared by L. Hamilton and Leo Pinkas

Vessel: N. B. SCOFIELD

Date: April 14-18, 1969

Locality: Santa Barbara Channel

Purpose: To assess the condition of marine bottom organisms and pelagic fish stocks in the vicinity of the oil well leak off Santa Barbara.

To sample bottom organisms along three transects located off Santa Barbara Point, Summerland, and Punta Gorda (Figure 1.)

To survey pelagic fish schools along transects between Port Hueneme and Goleta Point (Figure 2).

Procedure: Samples of demersal organisms were obtained with a 41-foot headrope Gulf shrimp trawl. Seventeen 10-minute bottom trawls, at depths ranging from 15 to 76 fathoms, were completed as the first phase of this cruise. Each of the three transects were reruns of those surveyed February 11, 1969.

Pelagic fish stocks were assessed with an Edo echo sounder and a 30-foot square midwater trawl. School numbers, species composition, size ranges, and other pertinent data were recorded where applicable.

Results: Bottom Trawl Survey
The 17 trawl hauls yielded 2,647 fish for an average of 156 fish per haul. Pink seaperch was the most numerous and frequently caught species of the 52 species taken. Other species prominent in the catch included longfin sanddabs, California tonguefish, longspine combfish, and stripetail rockfish. Economically important species such as northern anchovy, California halibut, bocaccio, or chilipepper were either few in number or occurred sporadically.

All fish appeared to be healthy. There were no deformities or signs of starvation.

Pelagic Fish Survey

During 96.6 miles of echo sounding, only 3 fish schools, all unidentified, were recorded. The schools were located at 10-35 fathoms over bottom depths of 18-50 fathoms. One school was located in Hueneme Canyon and two were found off the east end of Anacapa Island.

A light discontinuous scattering layer was detected in Hueneme Canyon and from the 50 fathom contour inshore to Rincon Point.

A total of three midwater trawls was made in this area. Species captured consisted mostly of medusafish, *Tchichthys lockingtoni*, plainfin midshipman, *Porichthys notatus*, and numerous large jellyfish, *Pelagia* sp. Adult northern anchovies, *Engraulis mordax*, were taken in very small numbers on two stations and many larvae at a third station over Hueneme Canyon (Table 1).

There were no indications of adverse effects on bottom and pelagic marine species due to oil leaks.

Acoustic and midwater trawl surveys in previous years indicate anchovies are normally scare in the Santa Barbara Channel during the spring.

Personnel: R. Mitchell, Vessel Captain
D. Hamilton, Biologist-in-charge
J. Geibel, Biologist
J. Spratt, Biologist
D. Hendrick, Seasonal Aid

MRO-TI/150
5-14-69/cg

FIGURE 1

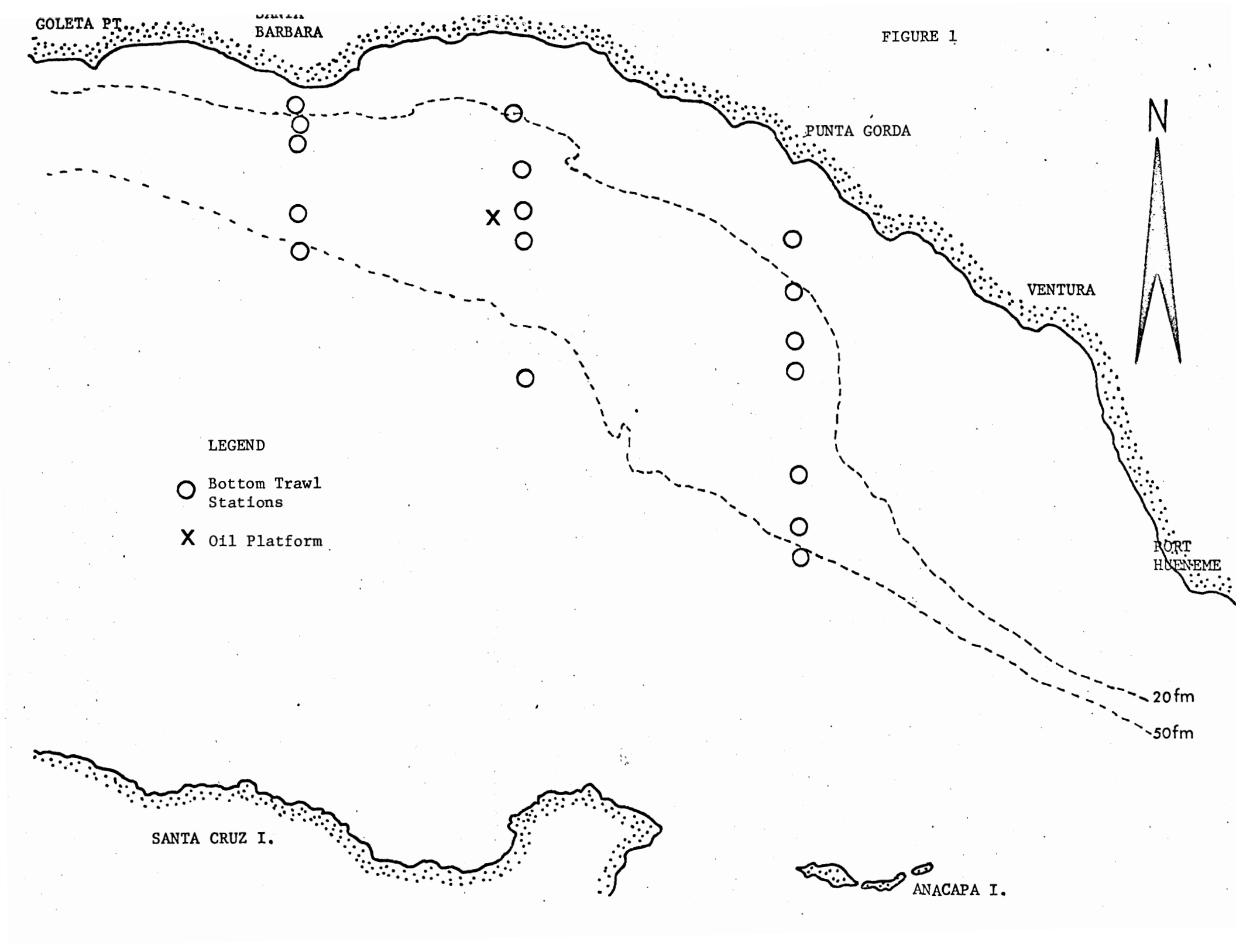
GOLETA PT.
BARBARA
PUNTA GORDA
VENTURA
N
LEGEND
Bottom Trawl Stations
Oil Platform
PORT HUENEME
20fm
50fm
SANTA CRUZ I.
ANACAPA I.

FIGURE 2

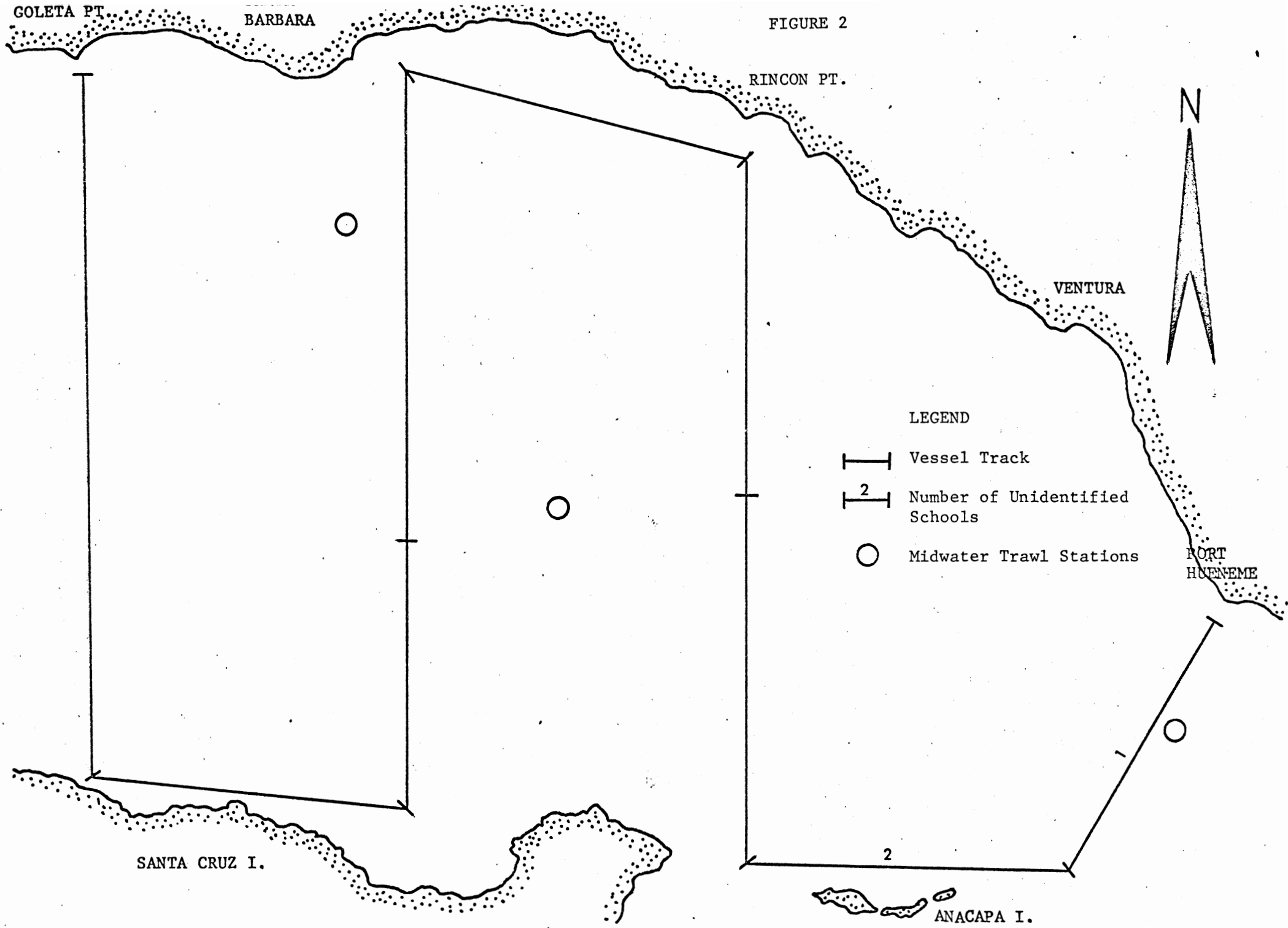
GOLETA PT.
BARBARA
RINCON PT.
N
VENTURA
LEGEND
Vessel Track
2
Number of Unidentified Schools
Midwater Trawl Stations
PORT HUENEME
1
2
SANTA CRUZ I.
ANACAPA I.

TABLE 1

MIDWATER TRAWL CATCHES

Species	Number	Size Range
Tow #1		
Northern anchovy	2	138-139 mm SL
Tow #2		
Northern anchovy	11	107-115 mm SL
Plainfin midshipman	21	128-182 mm SL
Medusafish	4	42-128 mm SL
Pacific pompano	2	63-128 mm SL
Tow #3		
Northern anchovy larvae	500 +	30-40 mm SL
Plainfin midshipman	13	123-183 mm SL
Medusafish	2	81-122 mm SL
California ribbonfish	1	298 mm SL