# Appendix J. Summary of Department Fishery-Dependent Monitoring and Fishery-Independent Assessment of Nearshore Commercial and Recreational Fisheries

# J.1 Ongoing Fishery-Dependent Monitoring

Locations: Crescent City, Eureka, Fort Bragg, Bodega Bay, San Francisco,

Morro Bay

Fishery: Commercial groundfish Sampling type: monitoring/market

Start date: 1992

Species: brown rockfish, cabezon, china rockfish, gopher rockfish, kelp greenling, grass rockfish, black-and-yellow rockfish, kelp rockfish, black rockfish, olive rockfish, quillback rockfish, blue rockfish, copper rockfish, treefish, calico rockfish

Data: catch, species composition, and length

Reference: California Cooperative Commercial groundfish Survey Sampling

Manual

Contact: Brenda Erwin, Dave Thomas

Location: Crescent City

Fishery: commercial nearshore Sampling type: monitoring/market

Start date: 1998

Species: brown rockfish, cabezon, china rockfish, gopher rockfish, kelp greenling, grass rockfish, black-and-yellow rockfish, kelp rockfish, black rockfish, olive rockfish, quillback rockfish, blue rockfish, copper rockfish, treefish, calico rockfish

Data: catch, species composition, and length

Reference: California Cooperative Commercial groundfish Survey Sampling

Manual

Contact: Brenda Erwin, Dave Thomas

<u>Locations</u>: Sport salmon ports from Crescent City to Morro Bay

Fishery: recreational salmon

Sampling type: monitoring/dockside

Start date: early 1970s

Species: salmon, rockfish, lingcod, California halibut

Data: categorized by skiff or charter boat, boats counted, species categories, number of fishermen; for non-salmon boats, only boats are counted

Contact: Matt Ericksen

Location: Crescent City to San Diego

Fishery: recreational nearshore

Sampling type: monitoring/onboard and dockside

Gear: hook-and-line

Start: 1979

Species: all nearshore species Data: effort, species, and lengths

Reference: Marine Recreational Fisheries Statistics Survey Annual Reports

Contact: Kon Karpov

# Location: Fort Bragg

Fishery: commercial nearshore Sampling type: monitoring/market

Start date: 1996

Species: black rockfish, black-and-yellow rockfish, blue rockfish, brown rockfish, cabezon, china rockfish, copper rockfish, gopher rockfish, grass rockfish, kelp greenling, olive rockfish, and quillback rockfish

Data: catch, species composition of market categories, lengths, catch location by vessel and date

Reference: Sport Fish Restoration Act (SFRA) annual reports, California Department of Fish and Game (CDFG) newsletters

Contact: Pete Kalvass

# Location: Bodega Bay

Fishery: recreational nearshore Sampling type: monitoring/dockside

Start date: July 1999

Species: black rockfish, black-and-yellow rockfish, blue rockfish, brown rockfish, cabezon, china rockfish, copper rockfish, gopher rockfish, grass rockfish, kelp greenling, olive rockfish, and quillback rockfish

Data: catch by fishing location, species composition, length, and finclips from black-and-yellow rockfish, brown rockfish, copper rockfish, gopher rockfish, and grass rockfish for Vincent Buonaccorsi, National Marine Fisheries Service, Southwest Fisheries Science Center, La Jolla

Contact: Tom Moore

#### Location: Bodega Bay

Fishery: commercial groundfish Sampling type: monitoring/market

Start date: 1988

Species: black rockfish, black-and-yellow rockfish, blue rockfish, brown rockfish, cabezon, china rockfish, copper rockfish, gopher rockfish, grass rockfish, kelp greenling, olive rockfish, and quillback rockfish

Data: catch, species composition of market categories, length and weight data. (When allowed, sex, maturity code, and otoliths are taken, but this is rare.) Cabezon (50 to 100 fish) are being collected for a CDFG stock assessment in 2000/2001, with data collected on length, weight, sex, maturity code, and otoliths.

Contact: Tom Moore

Location: San Francisco/Half Moon Bay

Fishery: commercial groundfish Sampling type: monitoring/dockside

Gear: trawl

Start: at least as early as 1975

Species: mostly groundfish species with some nearshore rockfish

Data: catch, species compositions, lengths, maturity

Reference: Pacific States Marine Fisheries Commission Sampling (PSMFC)

Contact: Kevin Walters, Brenda Erwin

## Location: San Francisco/Half Moon Bay

Fishery: commercial nearshore Sampling type: monitoring/dockside

Gear: hook-and-line

Start: 1991

Species: most nearshore rockfish, cabezon, kelp greenling

Data: catch, species composition, lengths Reference: SFRA annual performance reports

Contact: Kevin Walters, Becky Ota

#### Location: San Francisco

Fishery: commercial nearshore Sampling type: monitoring/market

Gear: hook-and-line

Start: 1995

Species: most nearshore rockfish, cabezon, kelp greenling

Data: species composition Reference: SFRA reports

Contact: Kevin Walters, Becky Ota

#### Location: San Francisco/Half Moon Bay

Fishery: commercial nearshore Sampling type: monitoring/market

Gear: hook-and-line

Start: 2000

Species: most nearshore rockfish, cabezon, kelp greenling

Data: species composition, lengths, cluster weight Reference: SFRA Annual Performance Report

Contact: Kevin Walters

#### Location: Monterey

Fishery: commercial nearshore Sampling type: monitoring/market Gear: hook-and-line and trap

Start: 1993

Species: most nearshore rockfish, cabezon, and kelp greenling

Data: catch, species composition, and lengths Reference: SFRA Annual Performance Reports

Contact: Jerry Spratt

Location: Monterey

Fishery: commercial groundfish Sampling type: monitoring/market Gear: hook-and-line, trap, and trawl

Start: 1977, began sampling nearshore fishery in 2000

Species: groundfish, nearshore rockfish, cabezon, and kelp greenling

Data: species, weight, length, age of some species

Reference: data entered into CALCOM file Contact: Brenda Erwin, Dave Thomas

Location: Monterey

Fishery: recreational nearshore Sampling type: monitoring/dockside Start date: 1982 (not continuous)

Species: surfperch, black rockfish, black-and-yellow rockfish, blue rockfish, china rockfish, copper rockfish, kelp rockfish, gopher rockfish, grass rockfish, olive rockfish, vermilion rockfish, cabezon, kelp greenling, and lingcod

Data: species composition, total length, fishing location and depth, and catchper-unit-effort (CPUE)

Reference: VenTresca DA, Brady BC, Donnellan M, Fisher J, Flescher D, Hornady B, Iverson R, King H, Lucas S, Maurer N, Reilly P. 2000. Monterey Sport Skiff Creel Survey 1981-1982, 1983-1984. Marine Life Management Act Progress Report.

Contact: David VenTresca

Location: Central California

Fishery: recreational nearshore Sampling type: monitoring/dockside

Gear: spearfishing meets

Start: 1950s

Species: black rockfish, black-and-yellow rockfish, blue rockfish, china rockfish, copper rockfish, kelp rockfish, gopher rockfish, grass rockfish, olive rockfish, vermilion rockfish, California sheephead, cabezon, kelp greenling, lingcod, pile surfperch, and striped surfperch

Data: species composition, total length, fishing location and depth, CPUE

Reference: individual dive meet reports

Contact: David VenTresca

Location: Big Sur Coast (Point Sur to Cape San Martin)

Fishery: commercial nearshore Sampling type: monitoring/dockside

Start date: 1997

Species: black rockfish, black-and-yellow rockfish, blue rockfish, brown rockfish, china rockfish, copper rockfish, kelp rockfish, gopher rockfish, grass rockfish, olive rockfish, cabezon, and kelp greenling

Data: species composition, total length, fishing location and depth, estimated sample and total weight of landings, CPUE

Reference: VenTresca D, Gingras ML, Donnellan M, Fisher J, Brady B, King H, King C. Submitted 2000. Potential of marine reserves to enhance nearshore fisheries: Assessing fish populations in the recently established Big Creek Ecological Reserve. California Sea Grant Colleges. MERRP Grant 8-BC-N.

Contact: David VenTresca

## Location: Morro Bay

Fishery: commercial nearshore Sampling type: monitoring/market

Start: 1993-98 hook-and-line; 1999 hook-and-line and trap

Species: all nearshore species except rock greenling, Calif. scorpionfish,

quillback rockfish, and calico rockfish

Gear: hook-and-line and trap

Data: catch, species composition, lengths

Reference: SFRA Annual Performance Reports (F-50-R)

Contact: Bob Hardy

#### Location: Morro Bay

Fishery: recreational nearshore Sampling type: monitoring/dockside

Start: 1999

Species: all nearshore species except rock greenling, Calif. scorpionfish, quillback rockfish, and calico rockfish

Data: number of anglers, catch, species composition, and lengths

Reference: SFRA Annual Performance Reports (F-50-R)

Contact: Christine Pattison

#### Locations: Santa Barbara and Ventura area

Fishery: commercial groundfish Sampling type: monitoring/market

Start date: 1993

Species sampled: copper rockfish, black and yellow rockfish, blue rockfish, brown rockfish, gopher rockfish, grass rockfish, kelp rockfish, treefish

Data: species, length and weight data, landing data, catch blocks

Reference: sampling data entered in PSMFC Comdat database. Summaries of market sampling data are contained in Santa Barbara Unit annual SFRA reports beginning in the 1993/94 report. (Comment: original data sheets are archived in the Santa Barbara field office. Data sheet copies are retained by groundfish survey staff in the CDFG Menlo Park office, along

with the Comdat database. Note that groundfish sampling conducted in 1999 and 2000 was sporadic, and data are sparse for that 2-yr time period.)

Contact: Dave Ono

#### Locations: Santa Barbara and Ventura area

Fishery: commercial nearshore Sampling type: monitoring/market

Start date: 1993

Species sampled: Calif. sheephead, Calif. scorpionfish, cabezon Data: species, length and weight data, landing data, catch blocks

Reference: summaries of market sampling data are contained in the Santa Barbara Unit SFRA annual reports. (Comment: The original data sheets and copies of the market sampling database are archived in the Santa Barbara field office. Data collected for the 19 nearshore species of concern are very limited in this database because this sampling program targeted other fisheries during most of the 8 years covered by this sampling program.)

Contact: Dave Ono

#### Locations: Santa Barbara and Ventura area

Fishery: commercial nearshore Sampling type: monitoring/onboard

Start date: May, 1999

Species: black rockfish, black and yellow rockfish, gopher rockfish, grass rockfish, kelp rockfish, treefish, cabezon, kelp and rock greenlings, California sheephead

Data: species, length, catch and effort, kept and released, catch location, catch depth

Reference: Onboard Bycatch Sampling; a final summary report was submitted to project coordinator Sandra Owen in January, 2000. Catch data are also summarized in the Santa Barbara Unit SFRA 99/00 Annual Report, Job 2. (Comment: data collection for this study ended in December, 1999. Nine trips were observed during the study period.)

Contact: Dave Ono

#### Location: Long Beach

Fishery: commercial nearshore Sampling type: monitoring/market

Gears: gill net, trawl, horizontal longline, and trap

Start date: 1992

Species: cabezon, California scorpionfish, and California sheephead Data: length, sex (only for sheephead: external coloration identification) Reference: biannual and annual Inter-Jurisdiction Fisheries Act reports

Contact: Steve Wertz, Mary Larson

Location: Long Beach

Fishery: commercial groundfish Sampling type: monitoring/market

Gears: gill net, horizontal longline, trap, and trawl

Start date: 1983

Species: market sampling began in 1983 for the following market species: barracuda, bonito, white seabass, Calif. halibut, thresher shark, mako shark, Pacific angel shark, swordfish, opah, yellowtail, rockfish spp., ridgeback and spot prawns. As other species such as sheephead, lingcod, cabezon, and scorpionfish began to appear at the markets, they were incorporated into the sampling program. In 1992 we changed the sampling to include the live-fish complex in our area and dropped rockfishes because we lost funding for a groundfish technician. The groundfish sampling was re-initiated in 1998 when funding was made available.

Data: fork length, weight, and species composition

Reference: Pacific Fisheries Information Network (PacFIN) data. The data can be viewed at <a href="www.psmfc.org/pacfin/data">www.psmfc.org/pacfin/data</a> (we have original hardcopies of the data). Our groundfish sampler would enter the data into a database program, then send it to the Pacific Fishery Management Council (PFMC) groundfish data technician located in the Menlo Park office.

Contact: Steve Wertz, Mary Larson

Location: San Diego

Fishery: commercial nearshore Sampling type: monitoring/market

Gear: hook and line, trap

Start: 1985

Species: California sheephead, scorpionfish, many rockfish Data: species, length, sex, gear, and Department fishing block

Reference: SFRA Reports and California Cooperative Fisheries Investigations

(CalCOFI) Reports

Contact: Alex Vejar

In addition to the above, the following long-term monitoring is being conducted statewide by the Department:

Fishery: CPFV Gear: hook-and-line

Start: 1936 Species: various

Data: effort, catch in numbers and species

Reference: Annual Reports

Contact: Deb Wilson-Vandenberg

Marine Fisheries Statistics Unit (California Fisheries Information System, CFIS)

Fishery: commercial

Gear: all Start: 1916

Data: commercial landing data

Reference: CMASTR and tables of annual landings

Contact: Joann Eres

## J.2 Past Fishery-Dependent Monitoring

Location: Morro Bay

Fishery: recreational nearshore Sampling type: monitoring/dockside

Start: 1976-83

Species: All nearshore species except rock greenling, Calif. scorpionfish,

quillback rockfish, and calico rockfish

Data: number of anglers, catch, species composition, and lengths

Reference: SFRA Annual Performance Reports (F-50-R)

Contact: Bob Hardy

Location: Crescent City

Fishery: recreational nearshore Sampling type: monitoring/dockside

Start: 1992-98

Species: All nearshore species except rock greenling, Calif. scorpionfish,

quillback rockfish, and calico rockfish

Data: number of anglers, catch, species composition, and lengths.

Reference: SFRA Annual Performance Reports

Contact: Pat Collier

## J.3 California Department of Fish and Game Bulletins

1913 Report on Fish Conditions. Fish Bulletin No. 1.

1926 The Commercial Fish Catch for the Years 1926 and 1927. Fish Bulletin No. 15, 1929.

Species: rockfish (Sebastodes, all species found in California)

sculpin (Scorpaenichthys and Scorpaena)

sheepshead [sic]

1936 The Commercial Fish Catch for the Years 1936 and 1937. Fish Bulletin No. 57, 19401

Species: cabezon

eel (misc.)

rockfish (Sebastodes and Sebastolobus)

sculpin

sea-trout, California sheepshead [sic]

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Sport fishing catches (passenger fishing boats and barges)
      Species: rockfish
                all others
1946 The Commercial Fish Catch for the Years 1945 and 1946. Fish Bulletin No. 67,
      1947
      Species: cabezon
                eel (misc.)
                rockfish (Sebastodes and Sebastolobus)
                sculpin
                (ea-trout, California not listed
                sheepshead [sic]
       Fishing-party vessels
                No catch information
1956 The Marine Fish Catch for the Years 1955 and 1956. Fish Bulletin No. 105, 1958
      Species: cabezon
                 eel (3 spp.)
                 rockfish (Sebastodes and Sebastolobus)
                 sculpin
                 sea-trout, greenling
                 sheep-head [sic]
       Fishing from licensed party boats (including barges)
                 rockfish
                 all others
1966 The Marine Fish Catch for the Year 1966. Fish Bulletin No. 1410, 1970
      Species: cabezon
                eel -not listed
                rockfish
                sculpin
                sea-trout, greenling - not listed
                sheephead, California
1976 California Marine Fish Landings for 1976. Fish Bulletin 170, 1979
      Species: cabezon
                eel (misc. and wolf-eel)
                rockfish (members of the family Scorpaenidae)
                sculpin
                sea-trout, greenling - not listed
                sheephead, California
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#### J.4 Ongoing Fishery-Independent Assessment

Location: Fort Bragg

Fishery: commercial and recreational nearshore

Sampling type: assessment/abundance index/ROV (remotely-operated vehicle)

1986 California Marine Fish Landings for 1977-1986. Fish Bulletin No. 173, 1990 Last marine landings published as part of the Fish Bulletin Series.

surveys

Start date: 1997

Species: black rockfish, blue rockfish, brown rockfish, canary rockfish, China rockfish, copper rockfish, gopher rockfish, kelp rockfish, olive rockfish, cabezon, kelp greenling, and lingcod

Data: species composition, length, and CPUE

Reference: Karpov K, DeMartini J, Kirby VL, Iampietro PJ, Sweetnam D, Prall M, Veise P, Shaughnessy F, Buttolph P, Lauermann A, Powers DA, Villa R, Kviteck R, Bretz CK, Patyten M. Draft. 2000. Quantitative inventory of habitat and species of management concern at Punta Gorda Ecological

Contact: Kon Karpov

## Location: Fort Bragg

Fishery: commercial and recreational nearshore

Sampling type: assessment/abundance index/hook-and-line surveys

Start date: 1995

Species: black rockfish, blue rockfish, brown rockfish, canary rockfish, china rockfish, copper rockfish, gopher rockfish, kelp rockfish, olive rockfish, cabezon, kelp greenling, and lingcod

Data: species composition and habitat associations

Reference: Karpov K, Kalvass P, Matyten M, Prall M, Sweetnam D, Albin D. Draft 2000. Nearshore reef fish investigations.

Contact: Kon Karpov

## Location: Monterey

Fishery: commercial and recreational nearshore

Sampling type: assessment/abundance index/scuba surveys of adult fishes

Start date: 1993

Species: black rockfish, black-and-yellow rockfish, copper rockfish, gopher rockfish, kelp rockfish, olive rockfish, vermilion rockfish, cabezon, California sheephead, kelp greenling, and lingcod

Data: species densities, length, and habitat associations

Reference: VenTresca D, Gingras ML, Donnellan M, Fisher J, Brady B, King H, King C. Submitted 2000. Potential of marine reserves to enhance nearshore fisheries: Assessing fish populations in the recently established Big Creek Ecological Reserve. California Sea Grant Colleges. MERRP Grant 8-BC-N.

VenTresca DA, Gingras ML, Donnellan M, Fisher J, Brady B. Submitted 2000. Kelp forest fish density estimates from a priori habitat-stratified random sampling: Implications for efficient stock assessment. California Sea Grant Colleges. MERRP Grant 8-BC-N-Extension.

Metadata for this survey can also be found on California Environmental Resources Evaluation System (CERES) Marine Region Metadata Site: http://ceres.ca.gov/catalog/bin/list\_records?catalog=188

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Contact: David VenTresca

Location: Big Sur

Fishery: commercial and recreational nearshore

Sampling type: assessment/abundance index/scuba surveys of adult fishes

Start date: 1993

Species: black rockfish, black-and-yellow rockfish, copper rockfish, gopher rockfish, kelp rockfish, olive rockfish, vermilion rockfish, cabezon, California sheephead, kelp greenling, and lingcod

Data: species densities, length, and habitat associations

Reference: VenTresca D, Gingras ML, Donnellan M, Fisher J, Brady B, King H, King C. Submitted 2000. Potential of marine reserves to enhance nearshore fisheries: Assessing fish populations in the recently established Big Creek Ecological Reserve. California Sea Grant Colleges. MERRP Grant 8-BC-N.

VenTresca DA, Gingras ML, Donnellan M, Fisher J, Brady B. Submitted 2000. Kelp forest fish density estimates from a priori habitat-stratified random sampling: Implications for efficient stock assessment. California Sea Grant Colleges. MERRP Grant 8-BC-N-Extension.

Metadata for this survey can also be found on CERES Marine Region Metadata Site: http://ceres.ca.gov/catalog/bin/list\_records?catalog=188

Contact: David VenTresca

## Location: Monterey

Fishery: commercial and recreational nearshore

Sampling type: assessment/abundance index/scuba surveys of young-of-the-year fishes

Start date: 1990

Species: black rockfish, black-and-yellow rockfish, blue rockfish, copper rockfish, gopher rockfish, kelp rockfish, olive rockfish, vermilion rockfish, cabezon, California sheephead, kelp greenling, and lingcod

Data: species densities, length, and habitat associations

Reference: VenTresca DA, Houk JL, Paddack MJ, Gingras ML, Crane NL, Short SD. 1996. Early life history studies of nearshore rockfishes and lingcod off central California, 1987-92. Marine Resources Division Administrative Report 96-4

Metadata for this survey can also be found on CERES Marine Region Metadata Site: http://ceres.ca.gov/catalog/bin/list\_records?catalog=188

Contact: David VenTresca

Location: Monterey

Fishery: commercial and recreational nearshore

Sampling type: assessment/abundance index/hook-and-line surveys

Start date: 1978

Species: black rockfish, black-and-yellow rockfish, blue rockfish, bocaccio, canary rockfish, copper rockfish, gopher rockfish, kelp rockfish, olive rockfish, starry rockfish, vermilion rockfish, yellowtail rockfish, cabezon, kelp greenling, and lingcod

Data: species composition, length, and CPUE

Reference: Metadata for this survey can also be found on CERES Marine Region Metadata Site: http://ceres.ca.gov/catalog/bin/list\_records?catalog=188

Contact: David VenTresca

Location: Big Sur

Fishery: commercial and recreational nearshore

Sampling type: assessment/abundance index/hook-and-line surveys

Start date: 1978

Species: black rockfish, black-and-yellow rockfish, blue rockfish, bocaccio, canary rockfish, copper rockfish, gopher rockfish, kelp rockfish, olive rockfish, starry rockfish, vermilion rockfish, yellowtail rockfish, cabezon, kelp greenling, and lingcod

Data: species composition, length, and CPUE

Reference: Metadata for this survey can also be found on CERES Marine Region Metadata Site: http://ceres.ca.gov/catalog/bin/list\_records?catalog=188

Contact: David VenTresca

## Location: Big Sur

Fishery: commercial and recreational nearshore

Sampling type: assessment/abundance index/scuba surveys of young-of-the-year fishes

Start date: 1990

Species: black rockfish, black-and-yellow, blue rockfish, copper rockfish, gopher rockfish, kelp rockfish, olive rockfish, vermilion rockfish, cabezon, California sheephead, kelp greenling, and lingcod

Data: species densities, length, and habitat associations.

Reference: VenTresca DA, Houk JL, Paddack MJ, Gingras ML, Crane NL, Short SD. 1996. Early life history studies of nearshore rockfishes and lingcod off central California, 1987-92. Marine Resources Division Administrative Report 96-4.

Metadata for this survey can also be found on CERES Marine Region Metadata Site: http://ceres.ca.gov/catalog/bin/list\_records?catalog=188

Contact: David VenTresca

Location: Big Sur

Fishery: commercial and recreational nearshore

Sampling type: submersible dives

Start date: 1996

Species: brown rockfish, copper rockfish, gopher rockfish, grass rockfish, kelp

rockfish, treefish, kelp greenling, and lingcod

Data: species composition, length, and habitat association

Contact: Bob Lea

Location: Morro Bay

Fishery: commercial and recreational nearshore

Sampling type: assessment/abundance index/hook-and-line surveys

Start date: 1978

Species: black rockfish, black-and-yellow rockfish, blue rockfish, bocaccio, canary rockfish, copper rockfish, gopher rockfish, kelp rockfish, olive rockfish, starry rockfish, vermilion rockfish, yellowtail rockfish, cabezon, kelp greenling, and lingcod

Data: species composition, length, and CPUE

References: Metadata for this survey can also be found on CERES Marine Region

Metadata Site:

http://ceres.ca.gov/catalog/bin/list\_records?catalog=188

Contact: David VenTresca

Location: Morro Bay

Fishery: commercial and recreational nearshore

Sampling type: assessment/abundance index/scuba surveys of young-of-the-year

fishes

Start date: 1990

Species: black rockfish, black-and-yellow rockfish, blue rockfish, copper rockfish, gopher rockfish, kelp rockfish, olive rockfish, vermilion rockfish, cabezon, California sheephead, kelp greenling, and lingcod

Data: species densities, length, and habitat associations

References: VenTresca DA, Houk JL, Paddack MJ, Gingras ML, Crane NL, Short SD. 1996. Early life history studies of nearshore rockfishes and lingcod off central California, 1987-92. Marine Resources Division Administrative Report 96-4

Metadata for this survey can also be found on CERES Marine Region Metadata Site: http://ceres.ca.gov/catalog/bin/list\_records?catalog=188

Contact: David VenTresca

Location: Morro Bay

Fishery: commercial and recreational nearshore

Sampling type: assessment/abundance index /hook-and-line and trap surveys

Start date: 1999

Species: black-and-yellow rockfish, brown rockfish, copper rockfish, gopher rockfish, grass rockfish, kelp rockfish, treefish, cabezon, kelp greenling, and lingcod

Data: species composition, length, and CPUE

Reference: SFRA annual performance reports (F-50-R)

Contact: Bob Hardy

Location: Southern California

Fishery: commercial and recreational nearshore

Sampling type: submersible dives

Start date: 1996

Species: brown rockfish, copper rockfish, gopher rockfish, grass rockfish, kelp

rockfish, treefish, kelp greenling, and lingcod

Data: species composition, length and habitat association

Contact: Bob Lea

## J.5 Past Fishery-Independent Assessment

Location: Monterey

Fishery: commercial and recreational nearshore

Sampling type: assessment/abundance index/oceanographic data

Start date: 1992

Species: nearshore fishes

Data: species composition, sizes, catch of recreational wharf fishermen, and sea

surface temperatures

Contact: Bob Lea

Location: Southern California

Fishery: commercial and recreational nearshore Sampling type: assessment/abundance index

Start date: 1981-1986 Species: nearshore fishes

Data: species densities and habitat associations Reference: Camp Pendleton Reef Surveys

Contact: Dennis Bedford

Location: Southern California

Fishery: commercial and recreational nearshore

Sampling type: assessment/life history

Start date: 1994-95

Species: California scorpionfish

Data: species composition, length frequencies, gonadosomatic body weights,

location, depths, temperature, and date

Reference: California scorpionfish gonadosomatic indexes

Contact: Sandra Owen

Location: Southern California

Fishery: commercial and recreational nearshore Sampling type: assessment/abundance indices

Start date: 1992-96

Species: nearshore fishes

Data: species composition, length frequencies, location, and depths

Reference: Alamitos Bay beam trawl surveys

Contact: Chuck Valle