# California Scorpionfish 2017 Assessment Biology and Data

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Background

Biology

Removals

Index Data

Composition Data





Background



### California scorpionfish Scorpaena guttata

- ✓ Distributed from central California to Punta Eugenia, Baja Mexico
- √ Rarely observed north of Pt. Conception
- $\checkmark$  Observed from the intertidal to 600 ft, preferred depth range from 20-450 ft
- ✓ Demersal, found over both hard and soft bottom
- √ Exhibit aggregating behavior (spawning and non-spawning)





Biology



# Length-at-age



### Maturity and Fecundity

Only information on maturity from Love et al. (1987)

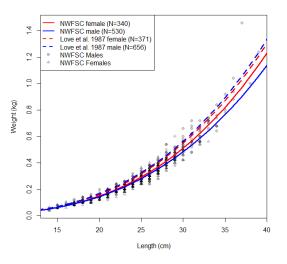
Found over 50% of females were mature by 18 cm TL, or two years of age.

All fish were mature by 22 cm TL

No information available on fecundity of California scorpionfish



#### Weight-at-length





## Natural mortality



# Steepness



#### Summary of Data used in the 2017 Assessment



#### Removals



#### **Total Removals**



# Commercial Landings by Fleet



# Recreational Landings by Fleet



#### Index Data



#### Summary of Indices

All of the methods used to standardize indices have been endorsed by the SSC

Name	Years	Fishery	Method
		ind.	
Recreational PR dockside CPUE	2004-2016	No	delta-GLM (bin-lognormal)
CPFV logbook CPUE	1980-2016	No	negative binomial
Onboard observer discard catch CPUE	2002-2016	No	delta-GLM (bin-lognormal)
Sanitation district CPUE	1970-2016	Yes	delta-GLM (bin-lognormal)
NWFSC trawl survey CPUE	2003-2016	Yes	VAST
CSUN/VRG Gillnet survey CPUE	1995-2008	Yes	delta-GLM (bin-lognormal)
Southern Califrnia Bight trawl survey	'94, '98, '03,	Yes	delta-GLM (bin-lognormal)
CPUE	'08, '13		
Onboard observer retained catch CPUE	2002-2016	No	delta-GLM (bin-lognormal)



#### Recreational Private Boat Index



#### Recreational Party/Charter Boat Index (Logbook)



#### Recreational Dead Discard Index



#### Recreational Party/Charter Retained Catch Index



# Sanitation Districts Survey Index

Program	0-24 m	25-49 m	50-74m	100+ m	Total
City of Los Angeles	120	0	1372	0	1492
Los Angeles County	687	0	5879	450	7016
Orange County	161	669	2157	48	3035
City of San Diego	0	404	333	829	1566



## Sanitation Districts Survey Index



## Sanitation Districts Survey Index



## NWFSC Trawl Survey Index



## Gillnet Survey Index



#### Southern California Bight Trawl Survey Index



## Composition Data

