# 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

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



## 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

