

Volunteer Anglers of the CA Collaborative Fisheries Research Program

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Introduction

Volunteer anglers are critical to the success of the California Collaborative Fisheries Research Program (CCFRP)! Our project aims to:

- conduct fishery-independent research collaboratively with local fishing communities, CPFV captains and agencies to understand nearshore fish stocks and to better inform resource managers
- gather robust data on sizes and densities of fishes inside marine protected areas (MPAs) to evaluate their performance
- educate the general public about life history traits of local species, and increase conservation and stewardship ethics

From 2007 to 2013, our project has:

- recruited 717 volunteer anglers
- worked with 12 sportfishing vessels and 20 captains
- conducted 244 standardized hook and line surveys
- caught 46,857 fishes from 46 different species
- used scientifically rigorous catch and release methods to monitor 4 MPAs along the Central Coast (Año Nuevo, Point Lobos, Point Buchon and Piedras Blancas)

From this overall effort, one goal was to evaluate if angler fishing experiences affects catch per unit effort (CPUE).

Outreach

CCFRP scientists maintain consistent communications with volunteers through:

- data workshops to discuss results and trends in catch rates and sizes of fishes
- annual newsletters highlighting results from each sampling season
- regular Facebook posts
- tag return information
- email, phone and website updates

“Like” CCFRP
On Facebook!



The collaborative nature of our project allows us to create engaging dialogue between all parties. Discussions about resource management and interactions with scientists help give our anglers a sense of ownership and increased stewardship toward MPAs.

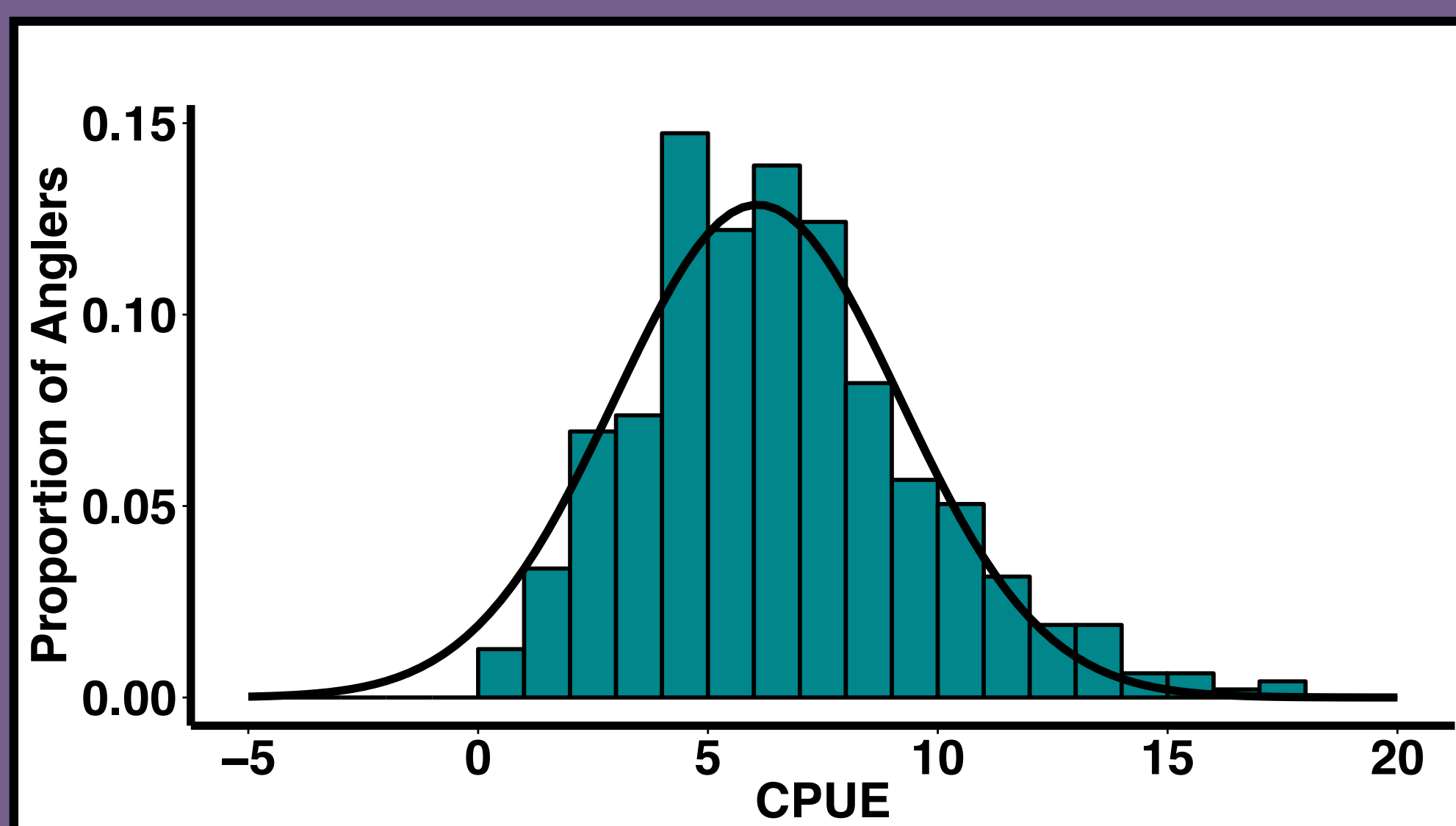


Fig 2. Frequency distribution of CPUE (fishes per angler hour) for volunteer anglers from 2008 to 2013

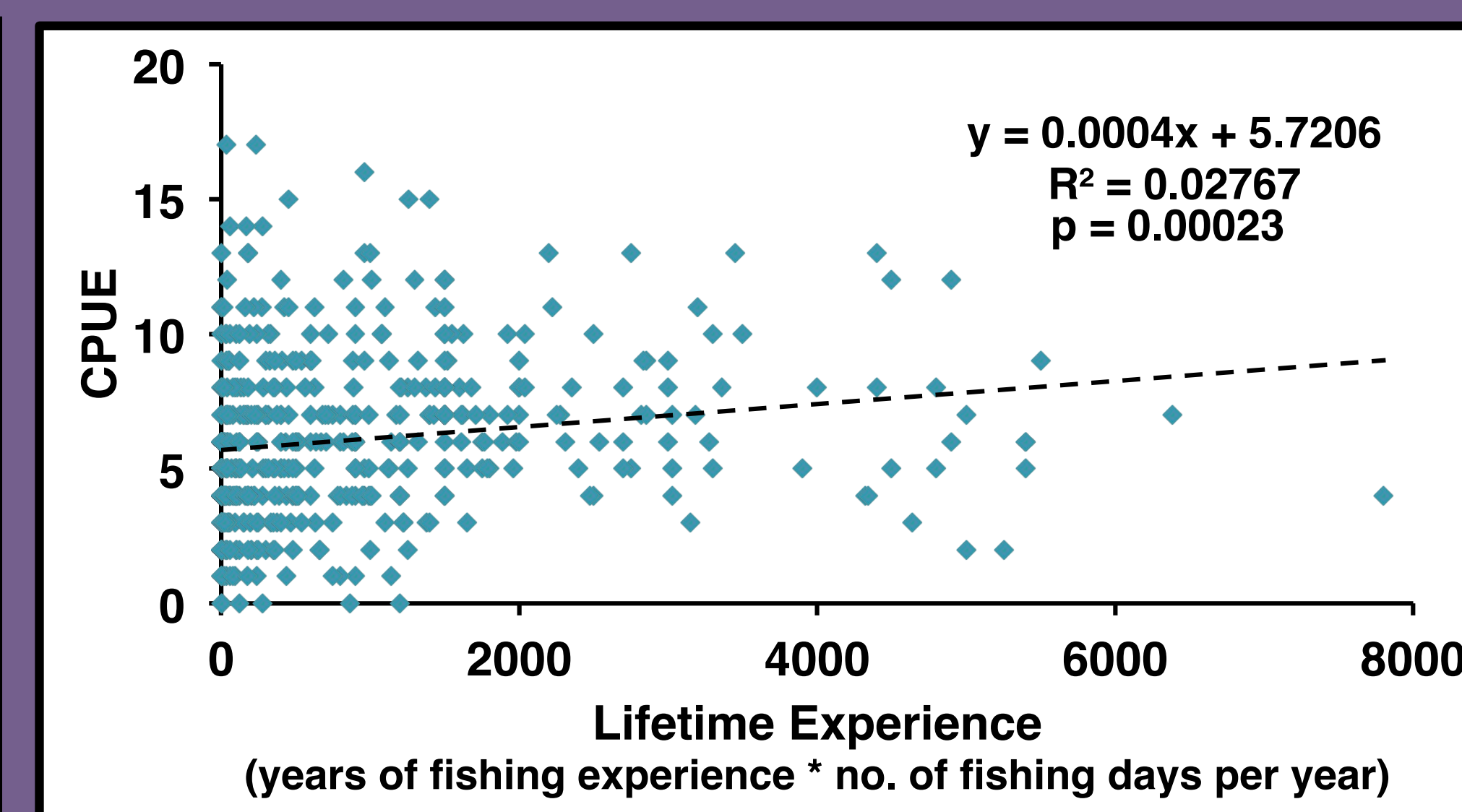


Fig 3. Lifetime fishing experiences and corresponding CPUE for volunteer anglers

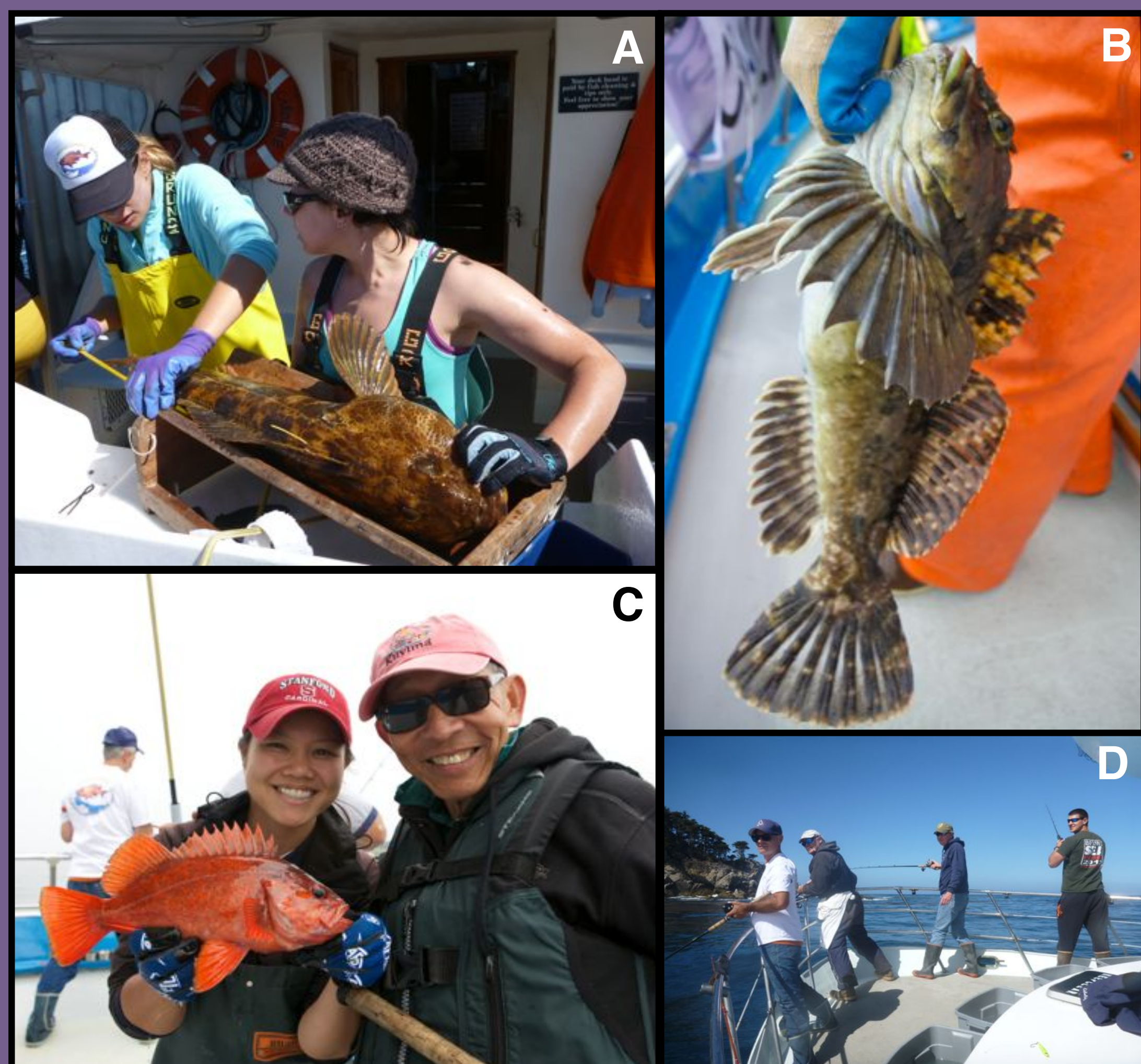


Figure 1. (A) Science crew members measuring and recording biological data of a Lingcod (B) CPFV deckhand transferring a recently caught Cabezon to the tagging station (C) Science crew member and volunteer angler holding a Vermilion Rockfish prior to release (D) Volunteer anglers fishing off the bow using standardized scientific protocols

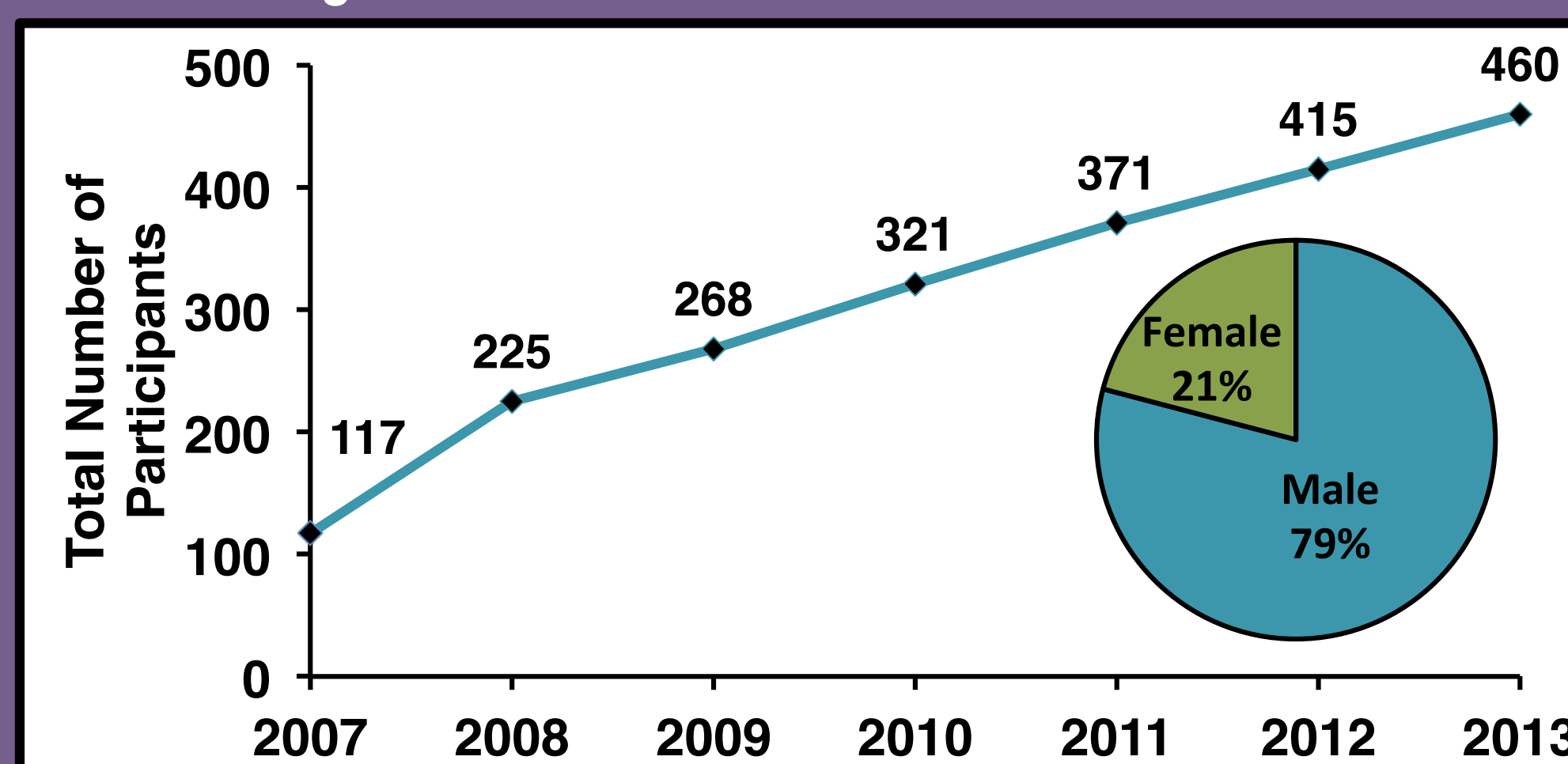


Fig 4. Total volunteer participation and gender over 7 years of sampling

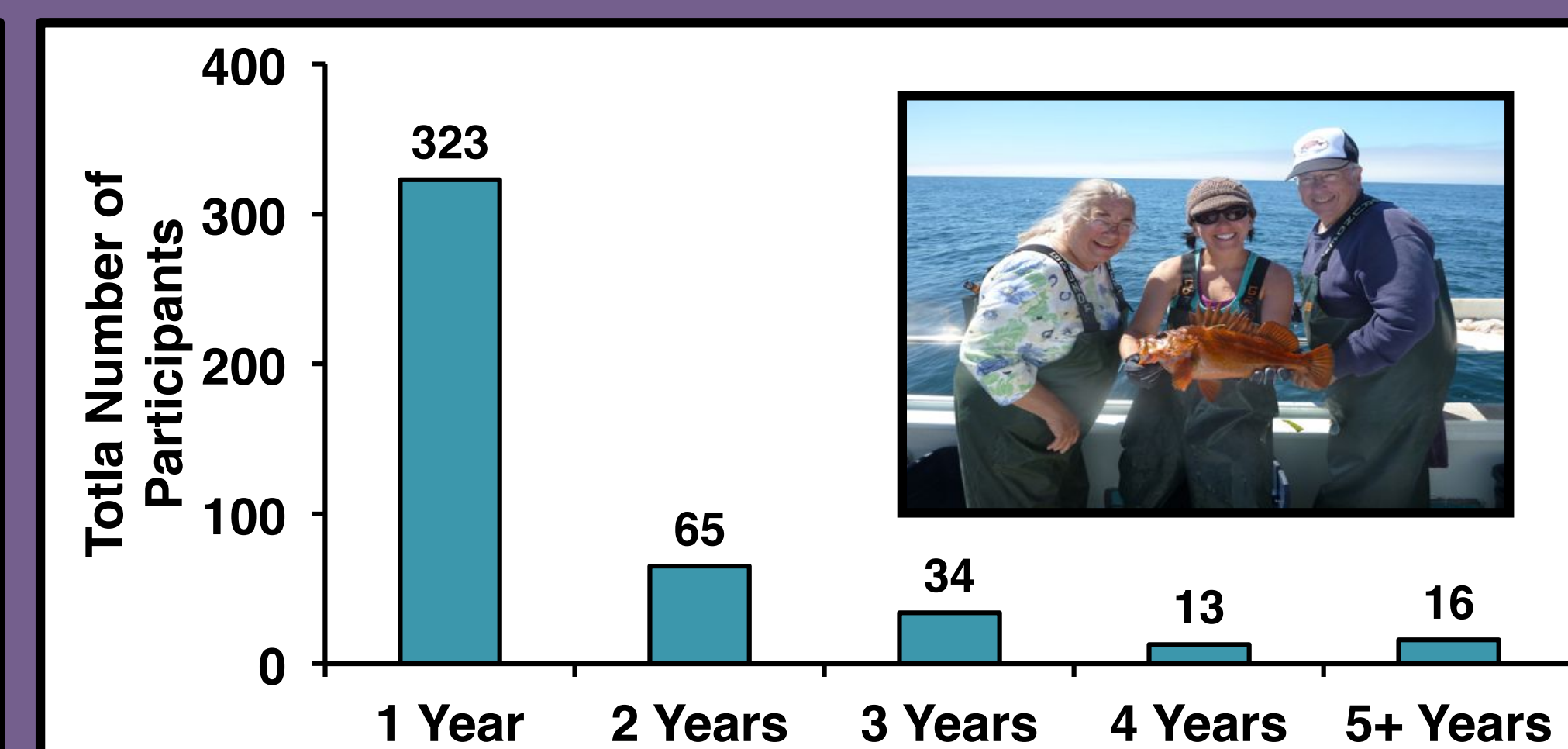


Fig 5. Number of years anglers have volunteered with CCFRP. Inset: Copper Rockfish displayed by volunteers and science crew

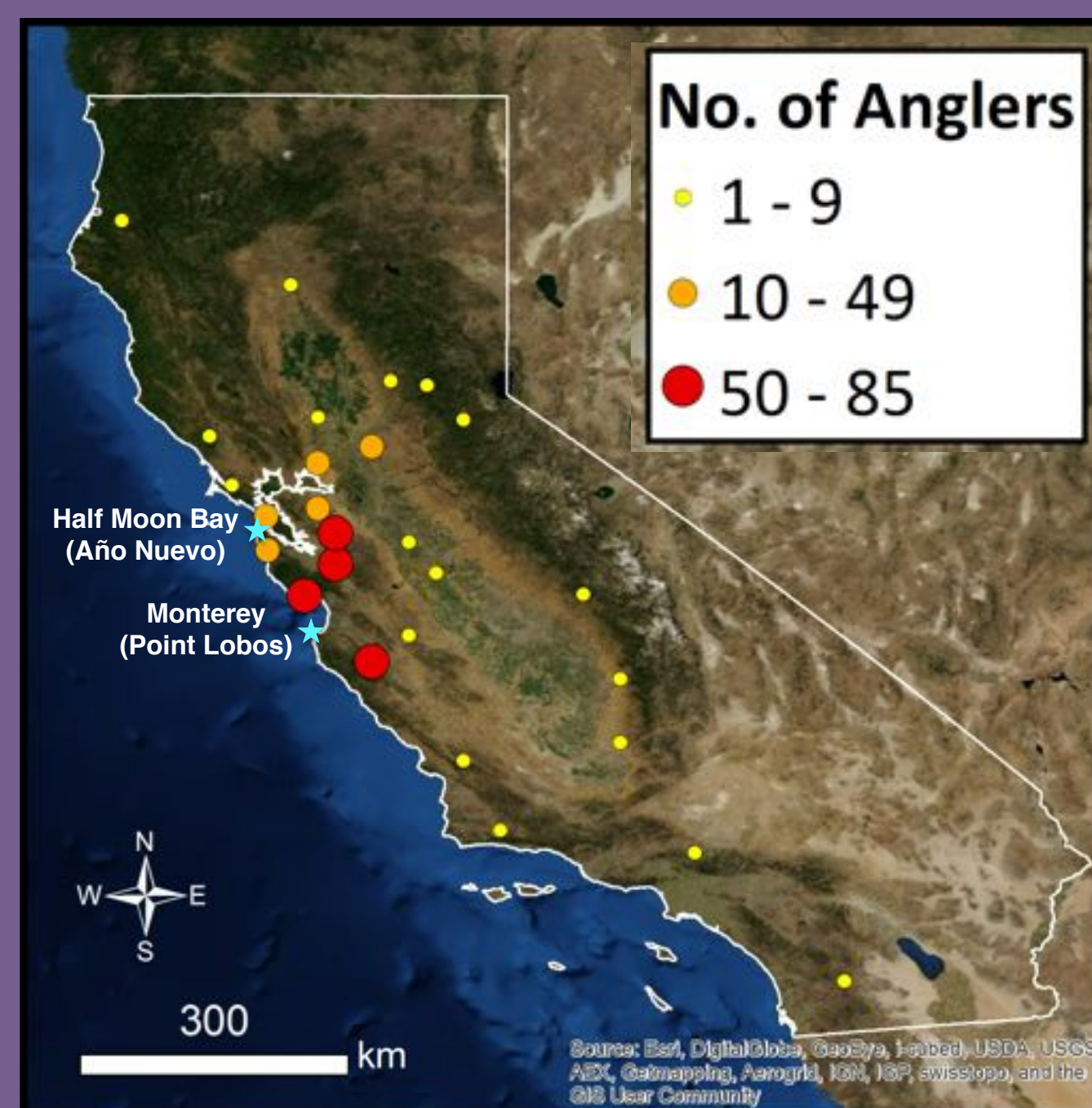


Fig 6. Distribution of anglers based on distance to each harbor used

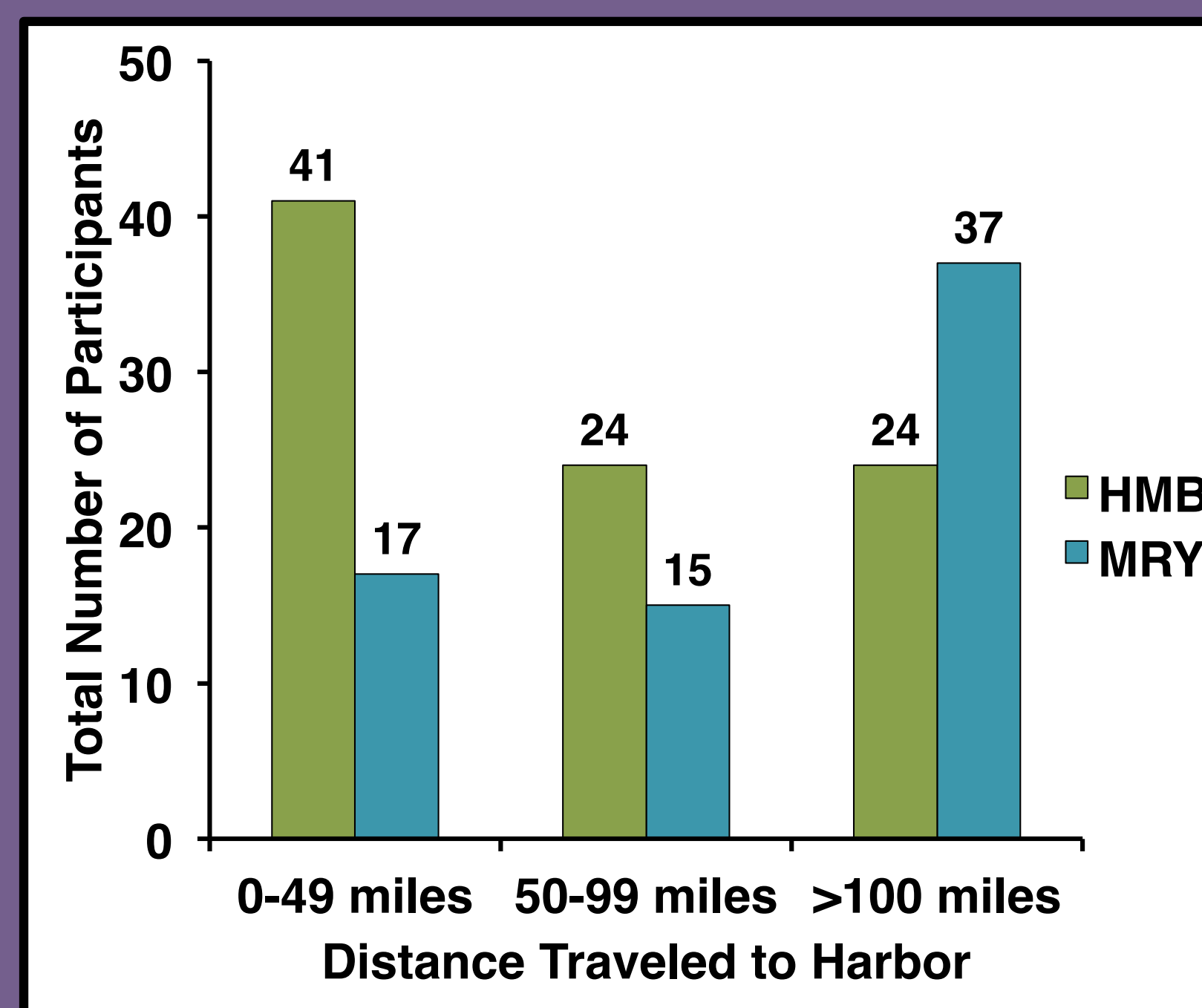


Fig 7. Distances anglers travel to each fishing harbor. Average distance traveled is 85 mi to Half Moon Bay (HMB), 120 miles to Monterey (MRY)



Fig 8. (A) Black Rockfish (B) Volunteer angler holding a Lingcod

Methods

In addition to collecting biological data through CCFRP, social information is compiled from annual volunteer angler written surveys. Experience level, fishing preferences, and demographic information help us characterize the volunteers of our program. Here, we present information collected from volunteer anglers fishing at Point Lobos (PL) and Año Nuevo (AN).

Results

CPUE is not greatly affected by fishing experience level (Fig 2, 3).

Since the program's inception, the number of volunteers, both male and female, has nearly quadrupled. The total number of anglers has steadily increased every year (Fig 4).

A large proportion of the volunteers who contribute their time to CCFRP return for multiple field seasons (Fig 5).

Volunteer anglers travel tens to hundreds of miles from counties all over California to participate in CCFRP data collection (Fig 6, 7).

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For more information, visit us at <http://seagrants.mml.calstate.edu/research/ccfrp/> or email seagrants@mml.calstate.edu