The Southeast Reef Fish Survey

2016 Update
Sampling Activities and Relative Abundance Indices

Southeast Reef Fish Survey (SERFS)

R/V *Palmetto*

- MARMAP (1972)
  - 1978 ➜ Reef fish sampling with (chevron) traps, bottom longlines, rod-&-reel, etc.
- SEAMAP-SA (1986)
  - 2009 ➜ Reef fish sampling (longlines, diet, new stations)
- SEFIS 2010
  - Video, bottom mapping

R/V *Lady Lisa*

R/V *Savannah*

NOAA Vessel *Pisces*

Marine Resoruces Monitoring, Assessment & Prediction Program
Southeast Area Monitoring & Assessment Program (South Atlantic)
Southeast Fishery Independent Survey

Primary Sampling Gears

Soak time for all gears:
90 minutes

Chevron Video Trap

CTD

Long Bottom Longline

Chevron Video Trap

- R/V *Palmetto*, R/V *Savannah*, and *Pisces*

- Used since 1990

- (April) May - Sept. (Oct.)

- Depths **to ≈110 m**

- Baited with Menhaden

- 1-3 video cameras on each trap

- **≈4,500 sampling** stations
  ≈1,500 stations randomly selected
   and sampled

Short Bottom Longline

- R/V *Palmetto* (SCDNR)
- Deeper ≈70 meters
- (April) May - Sept. (Oct.)
- Baited with whole squid
- Species: Snowy grouper, jacks, tilefish, speckled hind

Short Longline

305 m

24 m

20 hooks
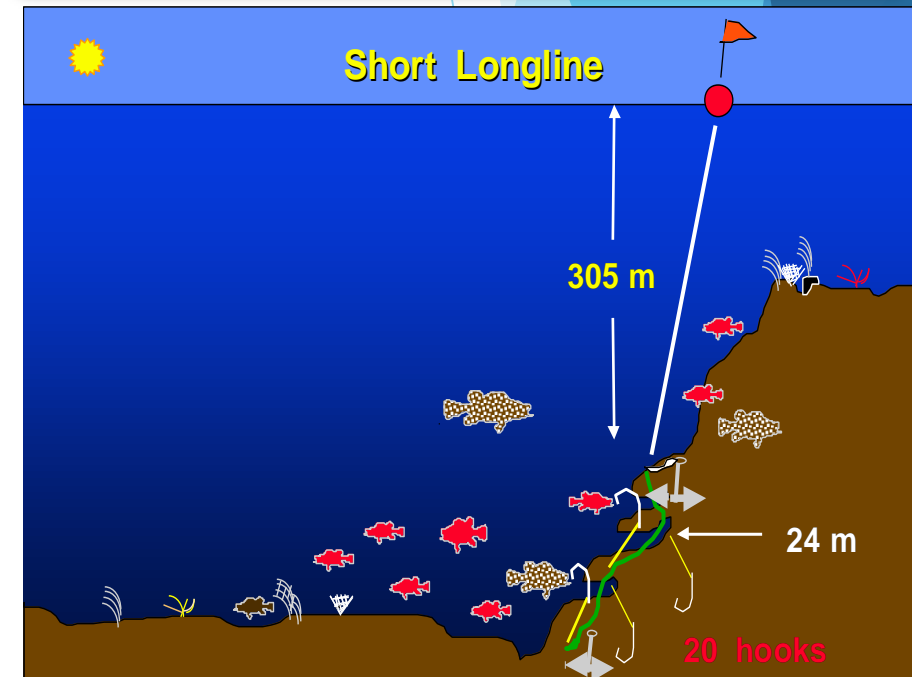
Short Bottom Longline

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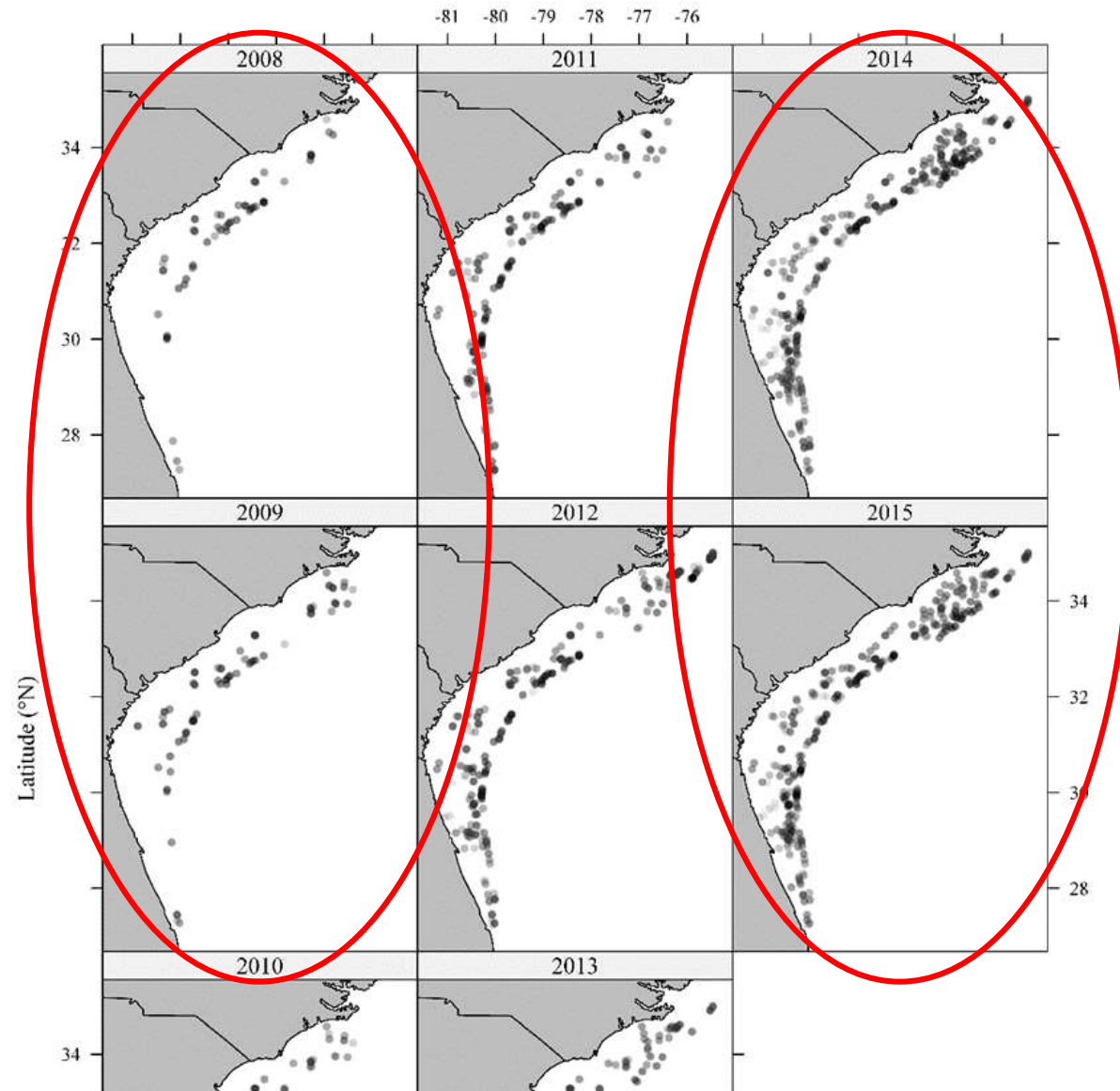- Species: Snowy grouper, jacks, tilefish, speckled hind

Long Bottom Longline

- R/V *Lady Lisa* (SCDNR)
- **Depths** ≈ **170** - 270 m (550 - 900 ft off SC and GA)
- Aug.- Sept.
- Baited with whole squid
- Species: Golden Tilefish (Sharks)
  - **15 blocks in "tilefish" habitat, target 2 lines/blocks each year**

Sampling Increase
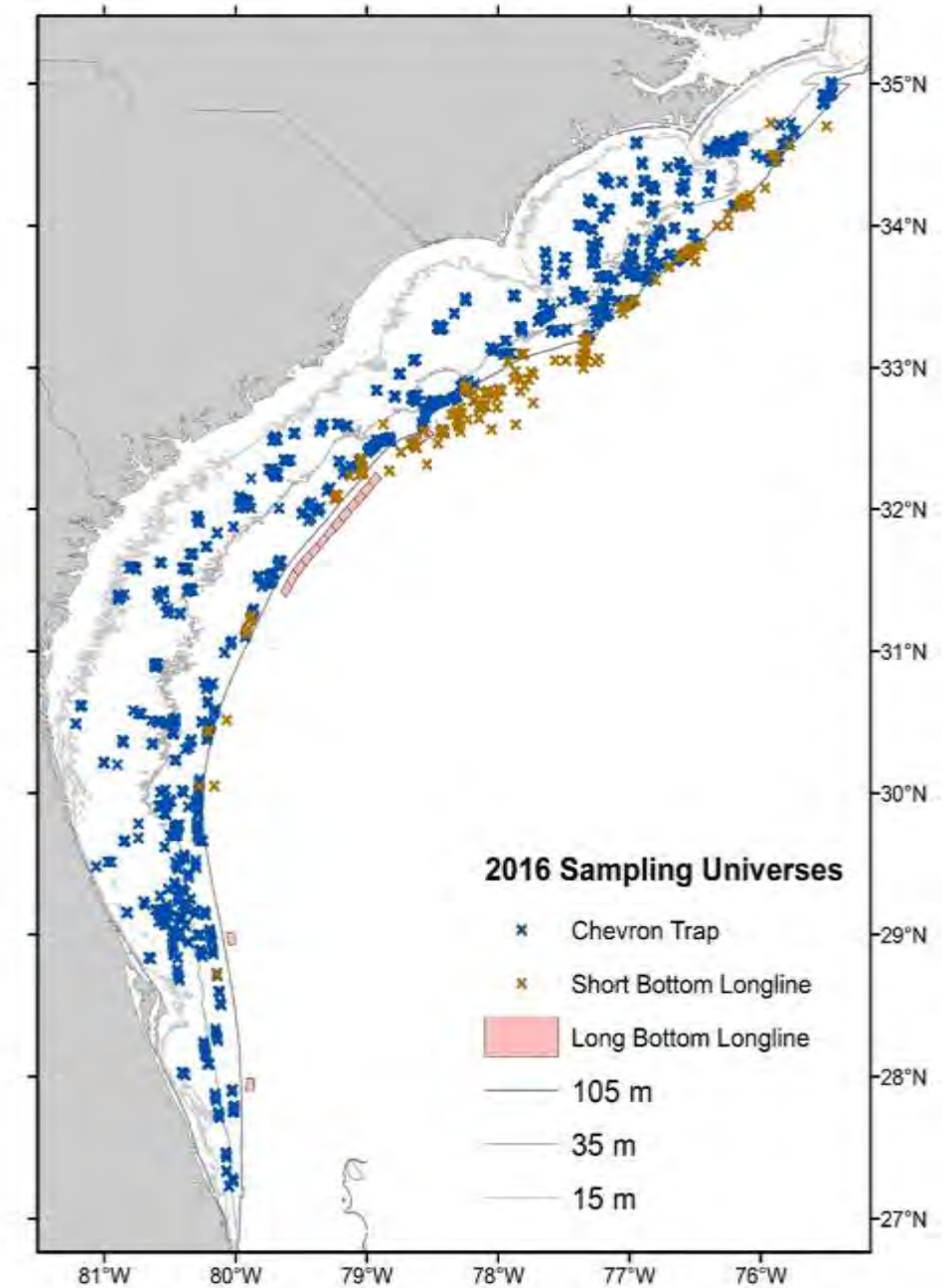
2016 Sampling Universes
- × Chevron Trap
- × Short Bottom Longline
- ▨ Long Bottom Longline
- — 105 m
- — 35 m
- — 15 m

2016 Southeast Reef Fish Survey Results

2016 Summary

- 1,537 chevron video traps (SERFS)
- 78 short bottom longline
- 30 long bottom longline
- 431 other gears
  (incl. CTD and rod-&-reel)

2016 Monitoring Deployments

- Chevron Trap
- Short Bottom Longline
- Long Bottom Longline
- 105 m
- 35 m
- 15 m
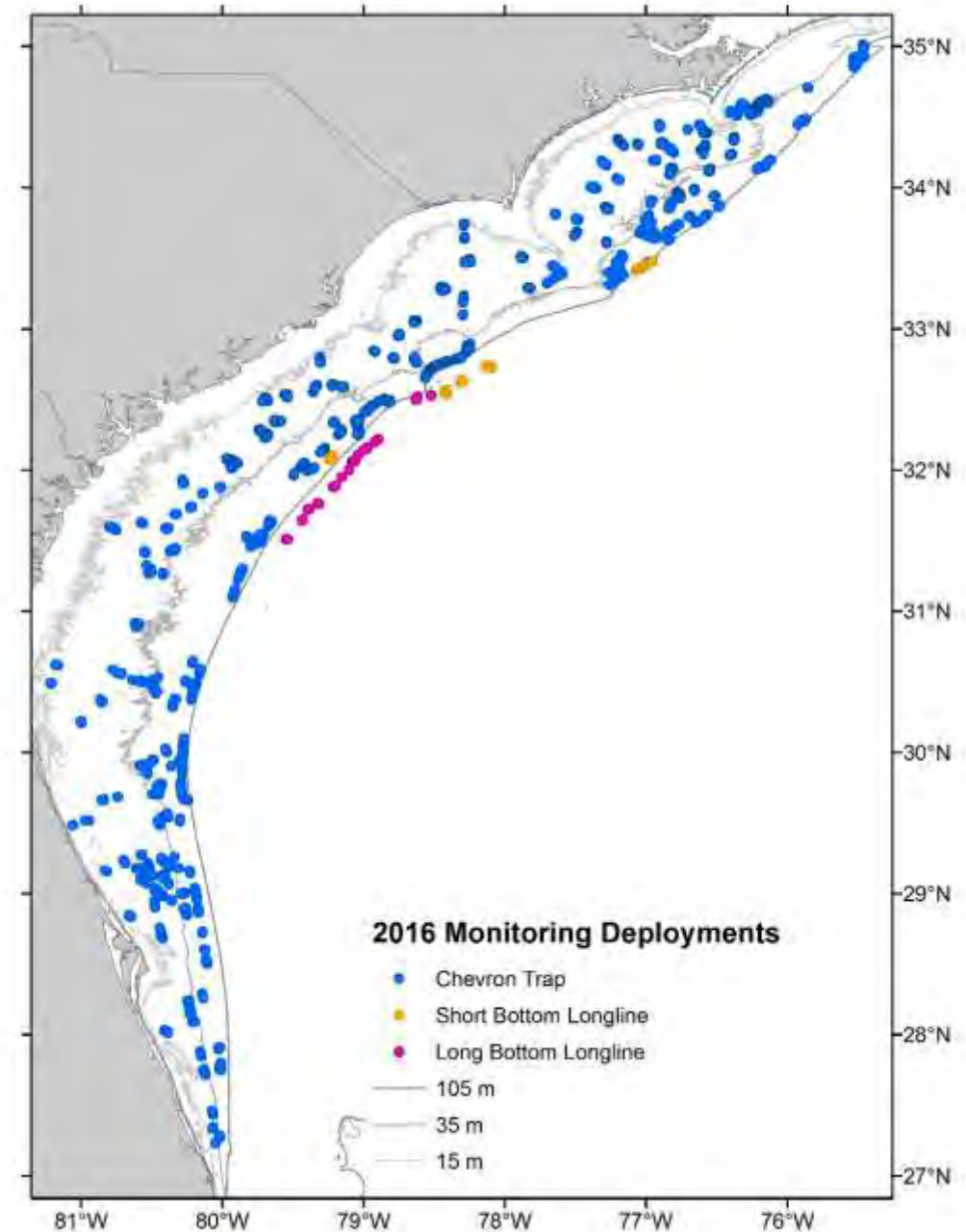
Species	rank	CHV	SBLL	LBLL	Total	%
Tomtate	1	18,559			18,559	42
Black Sea Bass*	2	7,989			8,036	18
Vermilion Snapper	3	4,555			4,555	10
Scup/Longspine Porgy	4	2,945			2,945	7
Gray Triggerfish	5	2,589			2,589	6
Red Porgy	6	1,917	7		1,924	4
White Grunt	7	1,275			1,300	3
Red Snapper	8	1,098			1,114	3
Bank Sea Bass	9	734			734	2
Knobbed Porgy	12	137			138	<1
Snowy Grouper	13	27	82		110	<1
Almaco Jack	14	73	14		87	<1
Scamp	16	53	4		61	<1
Blueline Tilefish	20	31	15		46	<1
Gag	23	31	1		38	<1
Tilefish	25	0	8	25	33	<1
Red grouper	32	19			20	<1
Total	89	43,502	175	93	43,896	

* 20% kept for LH

21 Lionfish
(rank 31)

Overview of CPUE for selected species

- Gears
  - chevron video trap (1990-2016),
  - short & long bottom longline (1996-2016)

- CPUE in $\frac{Catch}{Trap*hr}$
  - Standardized using Delta-GLM method
  - Index normalized to long term average
  - Error bars are ± 95% CI

Caveats

▶ Summary overview, not an update of stock status

▶ Constraints, stratification, units, and models for CPUE may be different from those used in (SEDAR) stock assessments

▶ Many species not assessed or updated (SEDAR) and not all trends discussed in assessment framework

Overview

Snowy Grouper - Short Bottom Longline
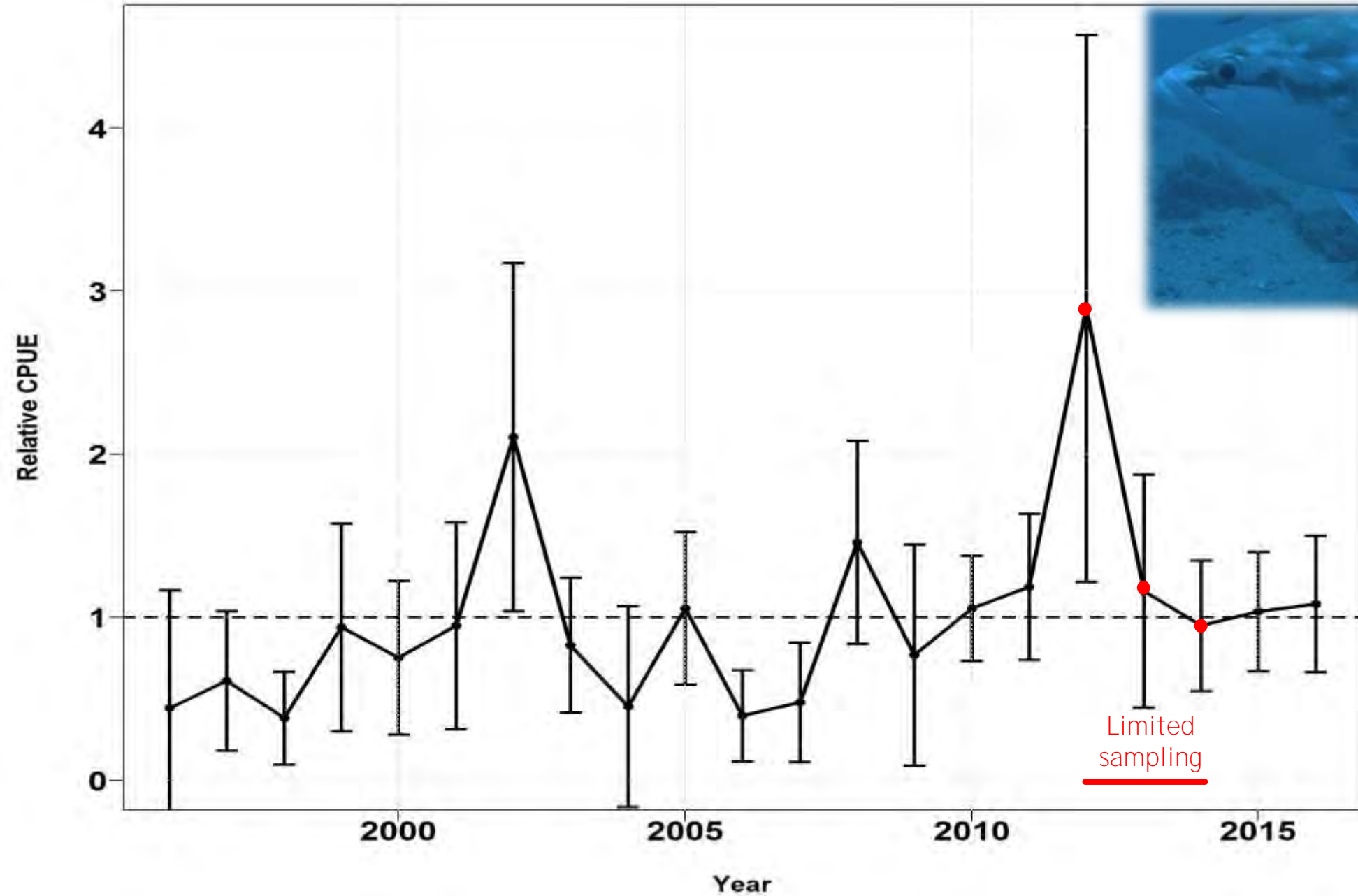
Blueline Tilefish - Short Bottom Longline
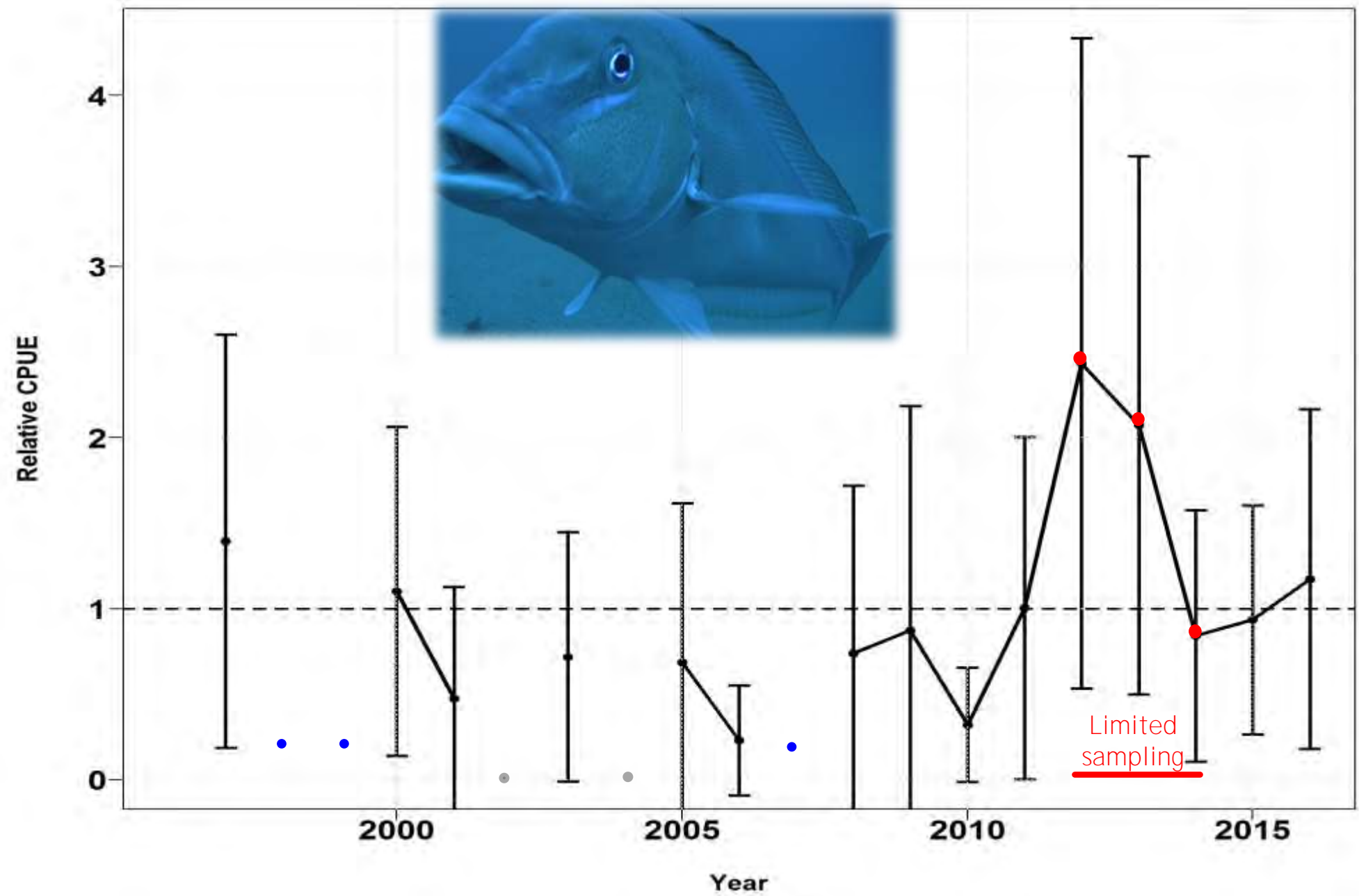
Golden Tilefish - Long Bottom Longline
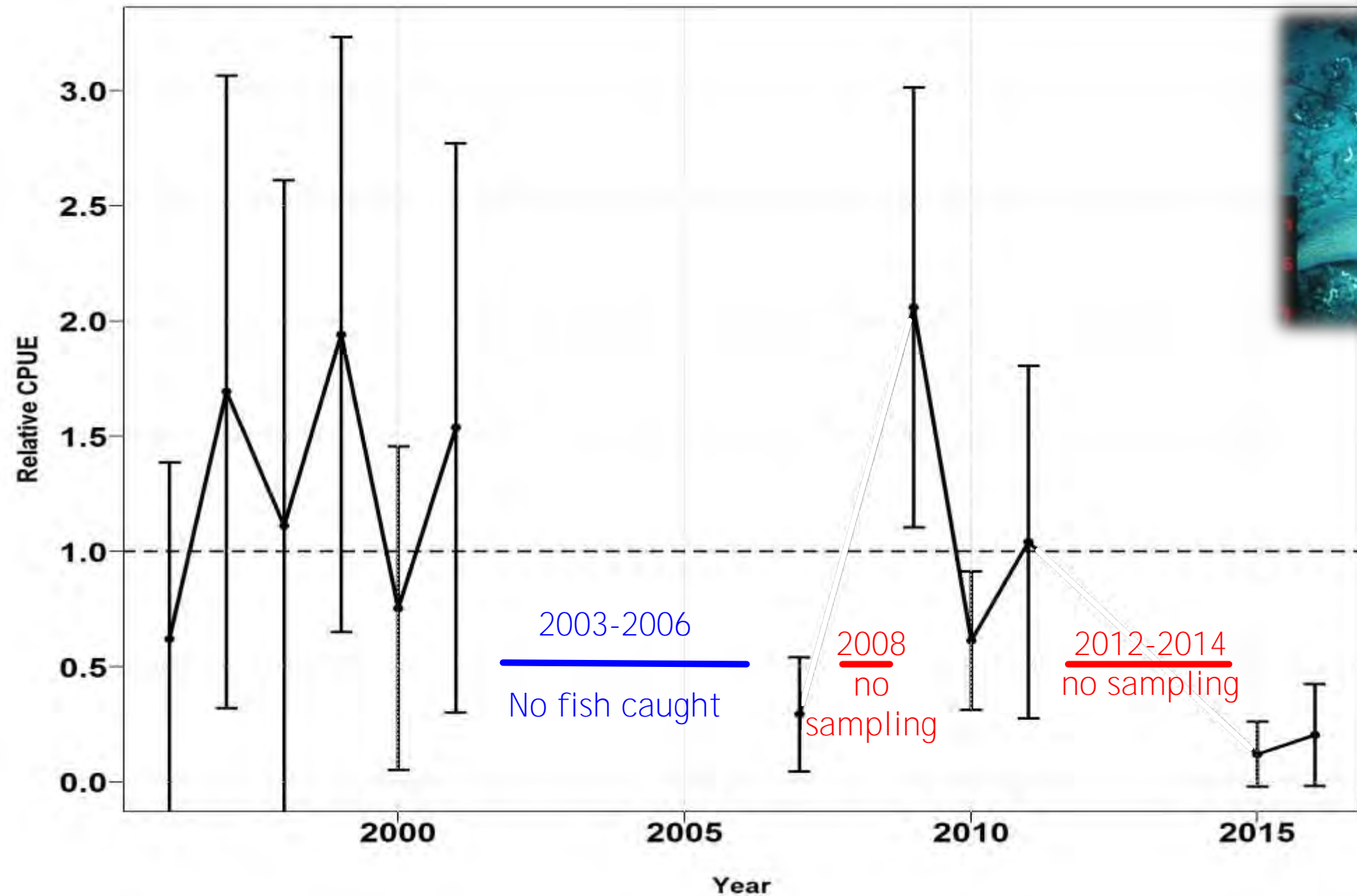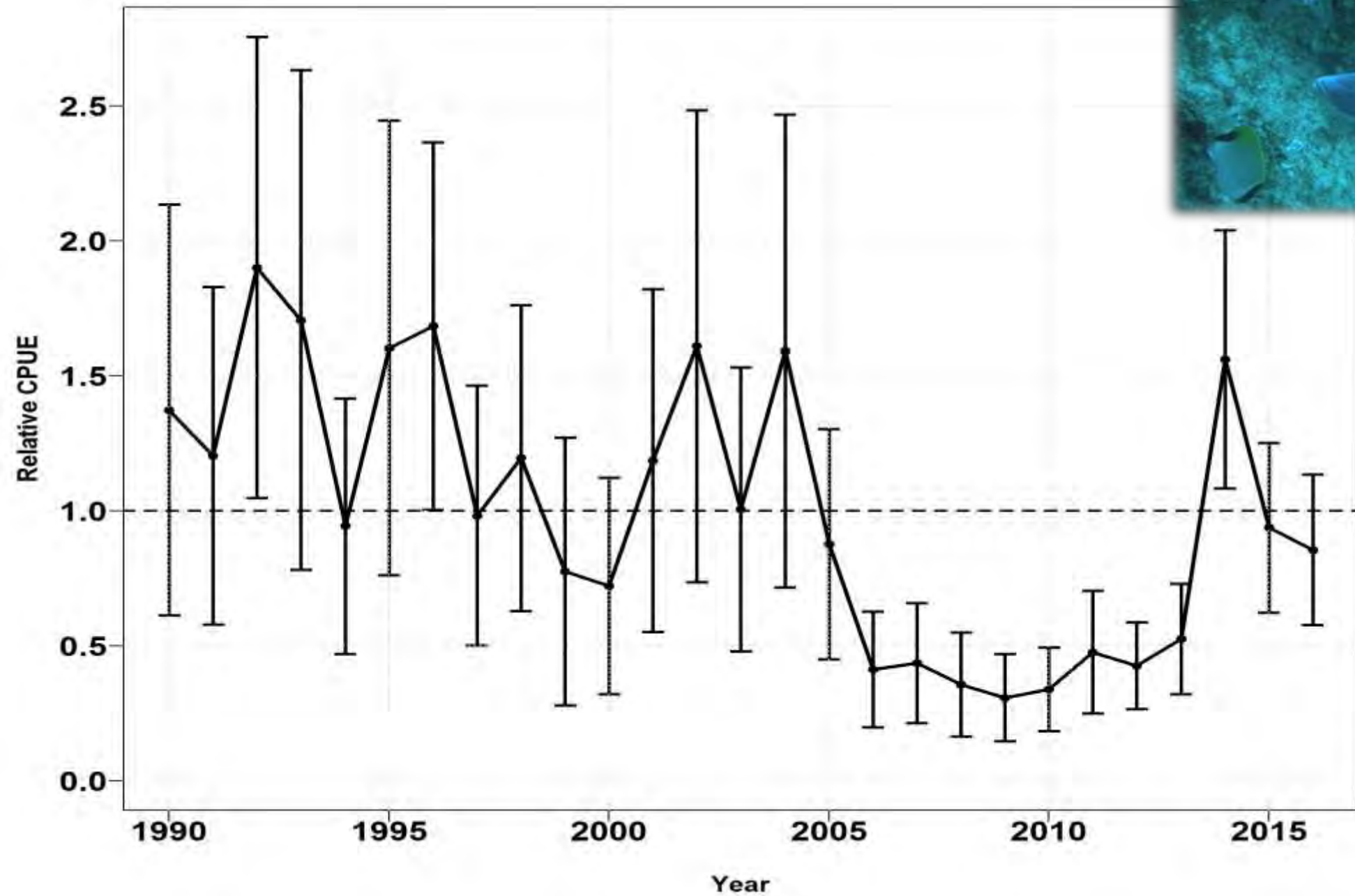
Gray Triggerfish - Chevron Video Trap
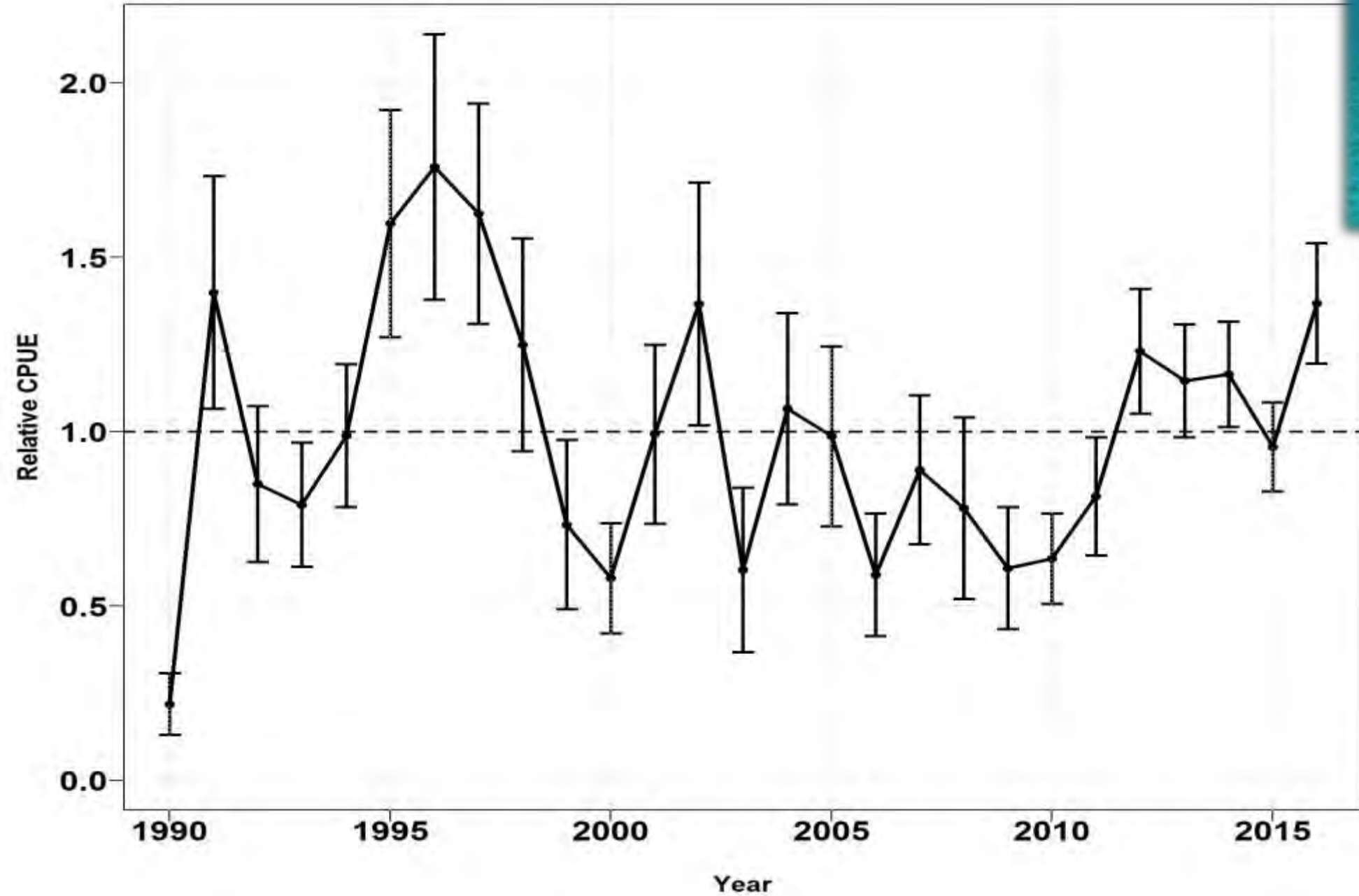
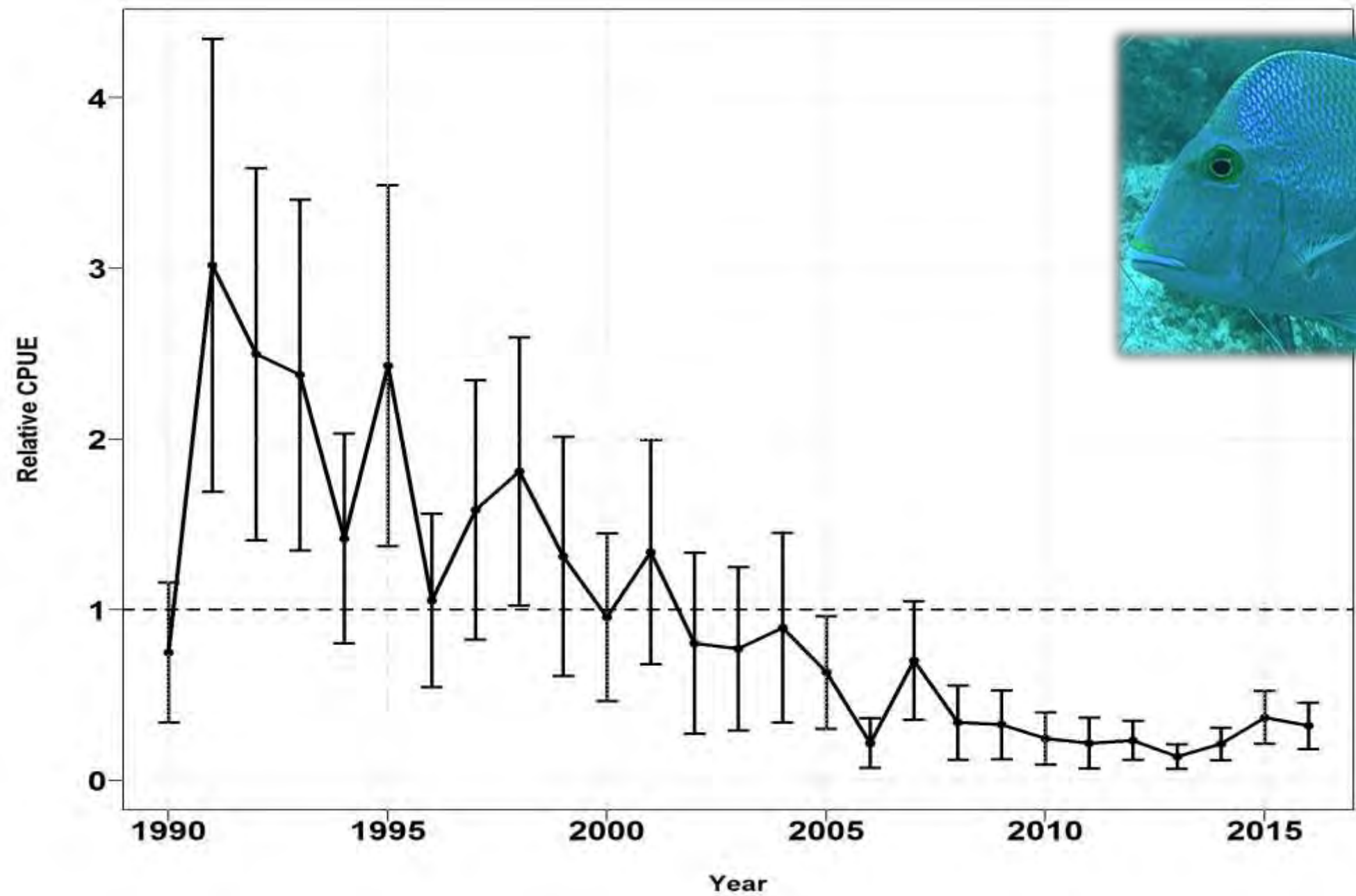# Tomtate - Chevron Video Trap
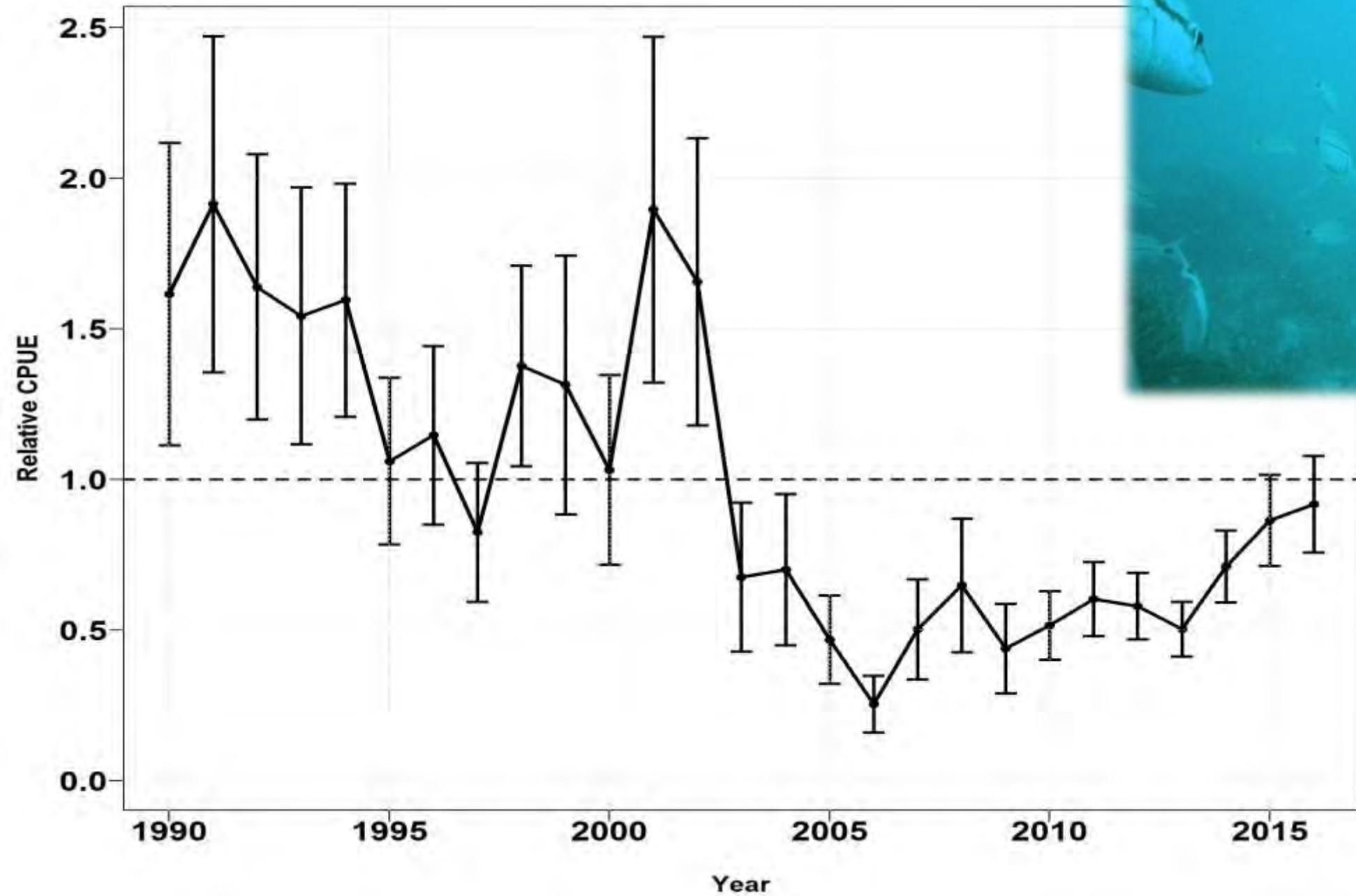
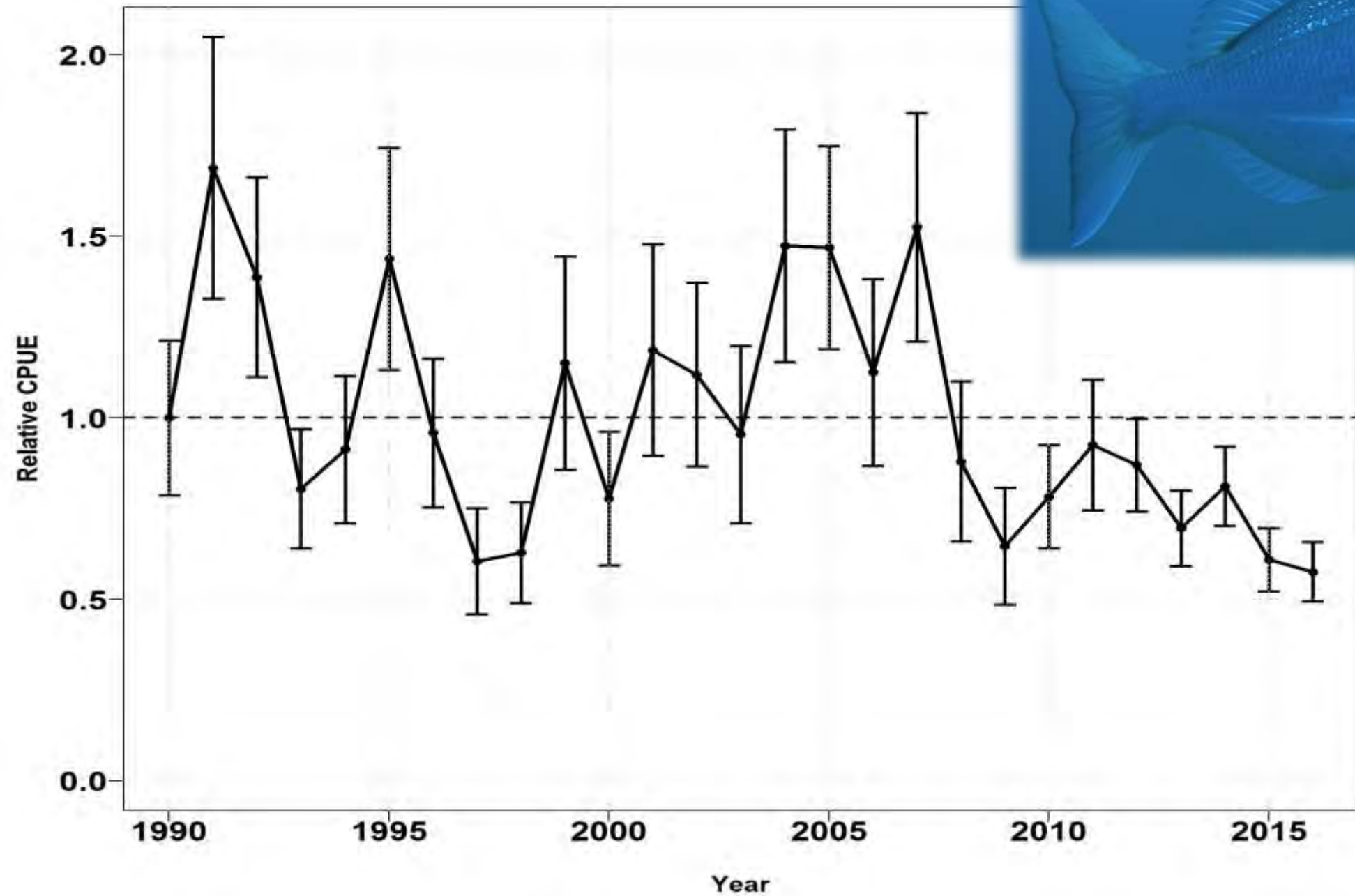# White Grunt - Chevron Video Trap
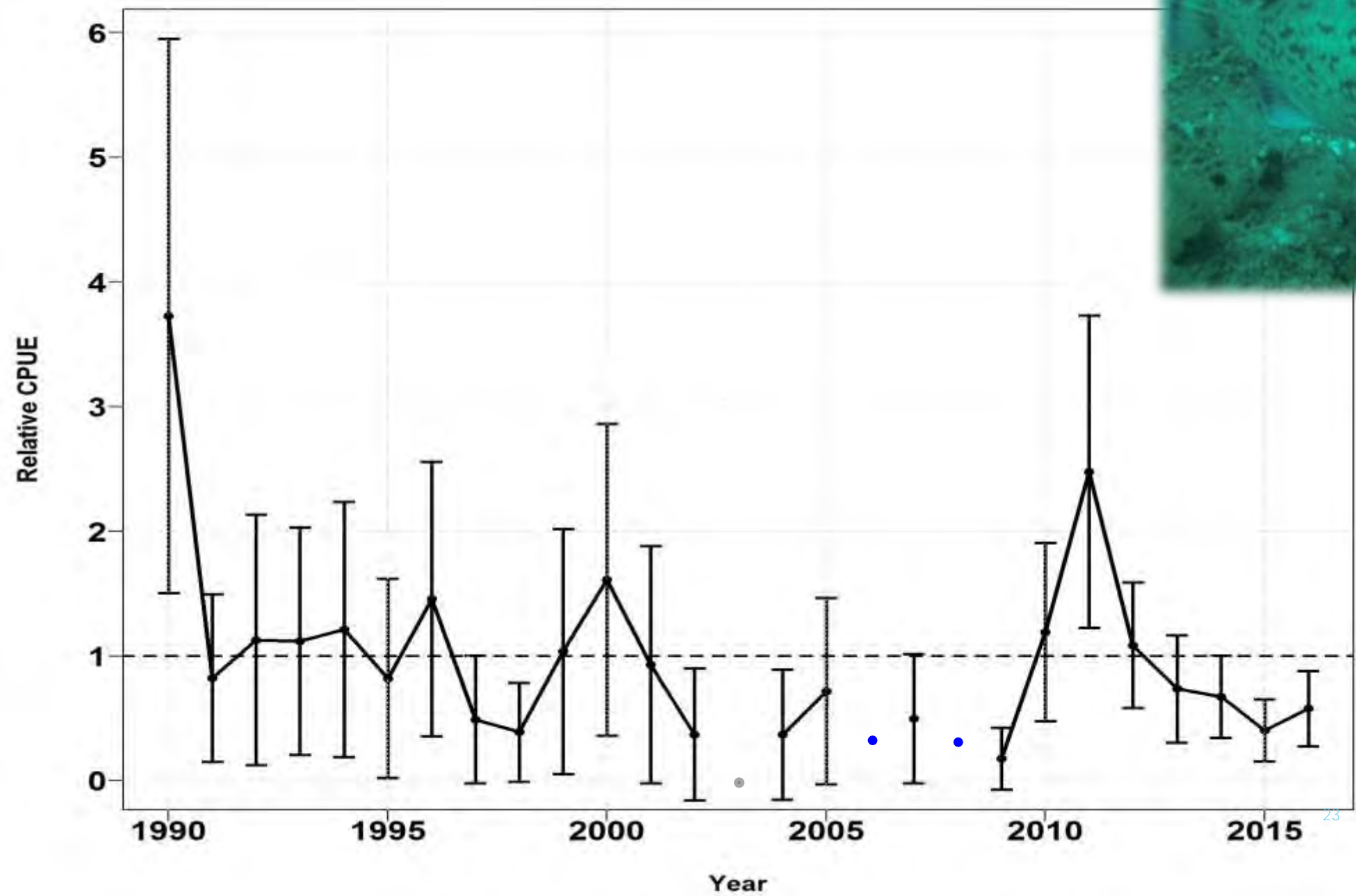
Stenotomus sp. - Chevron Video Trap
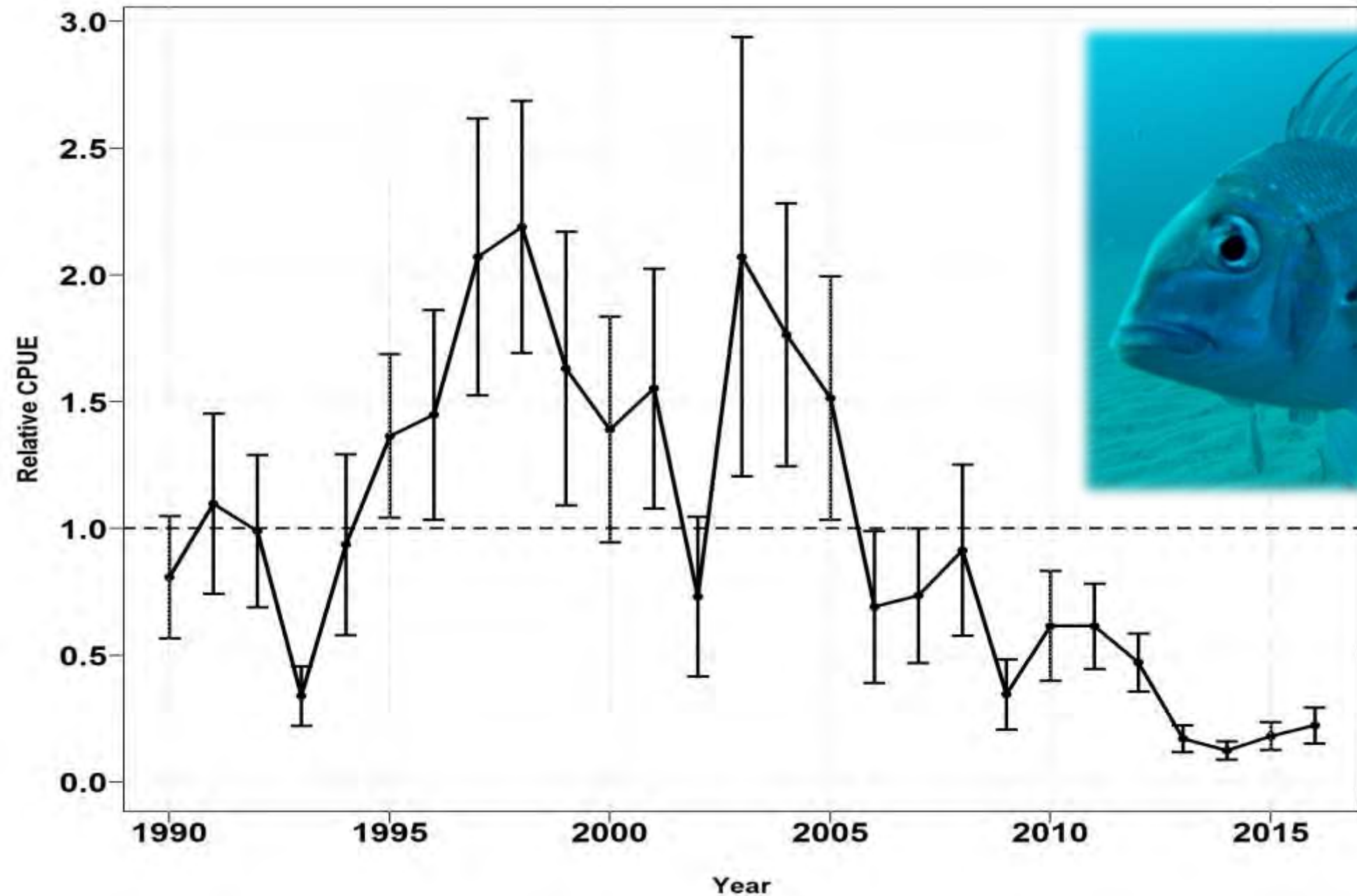
Knobbed Porgy - Chevron Video Trap
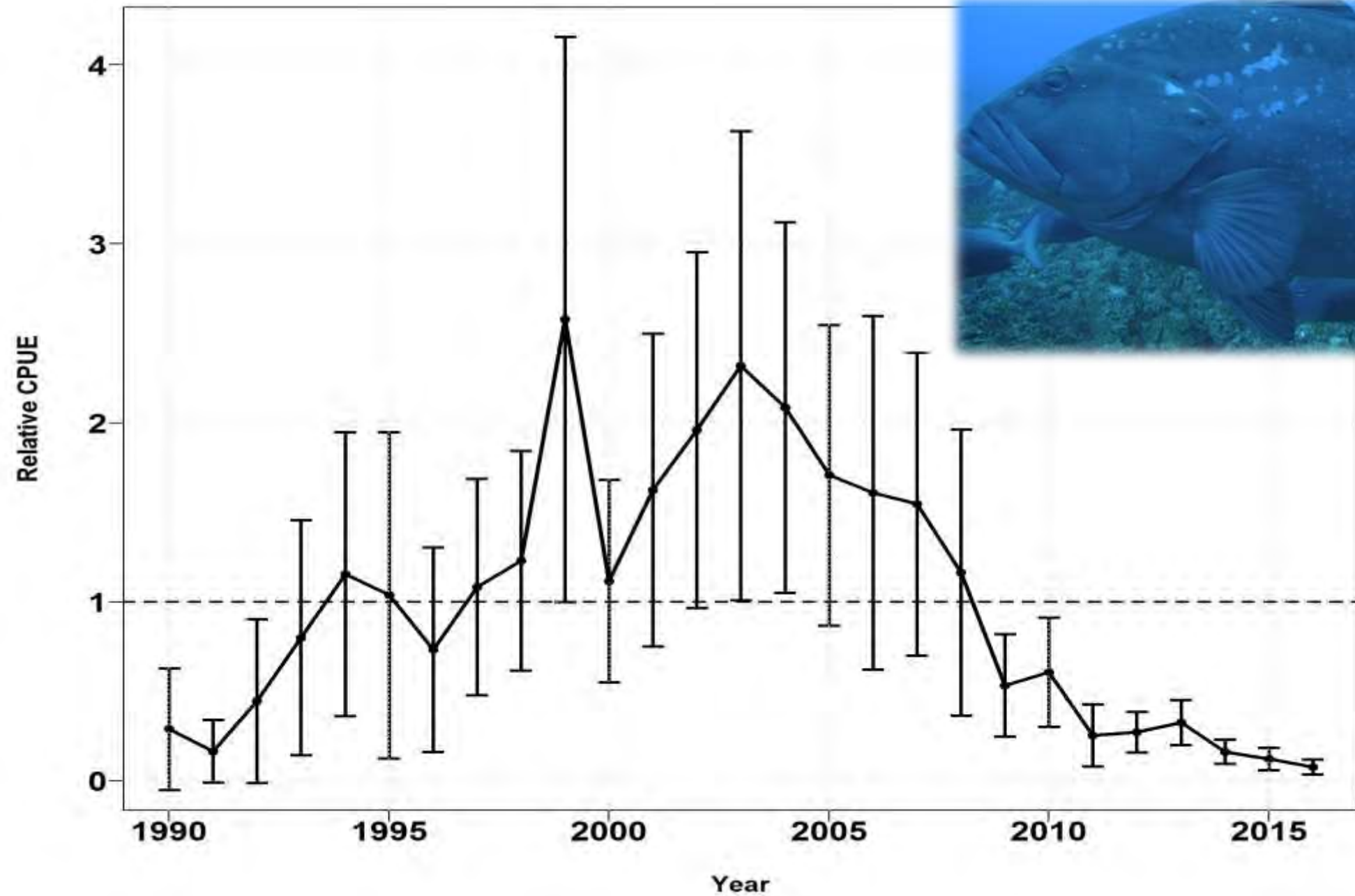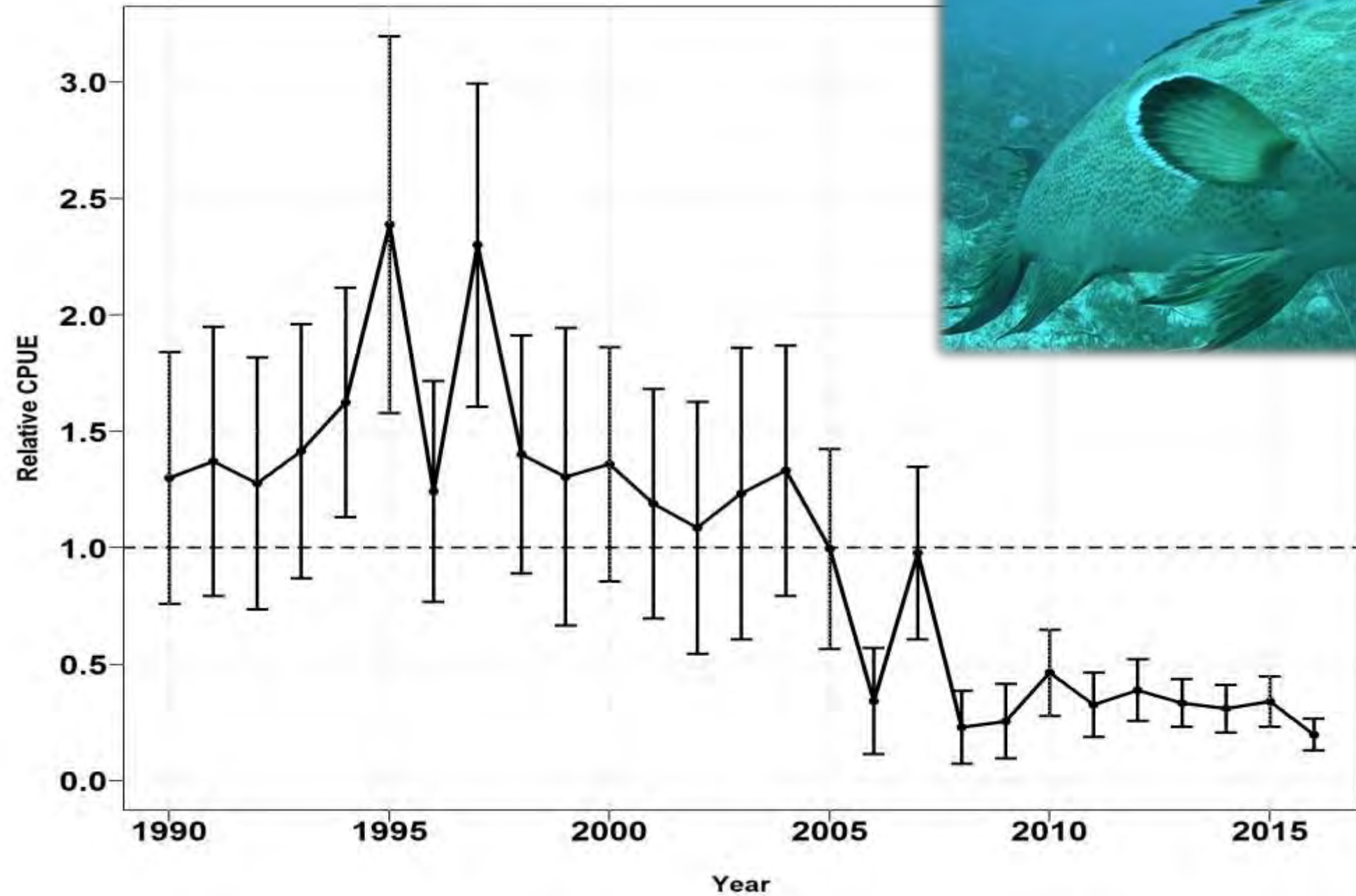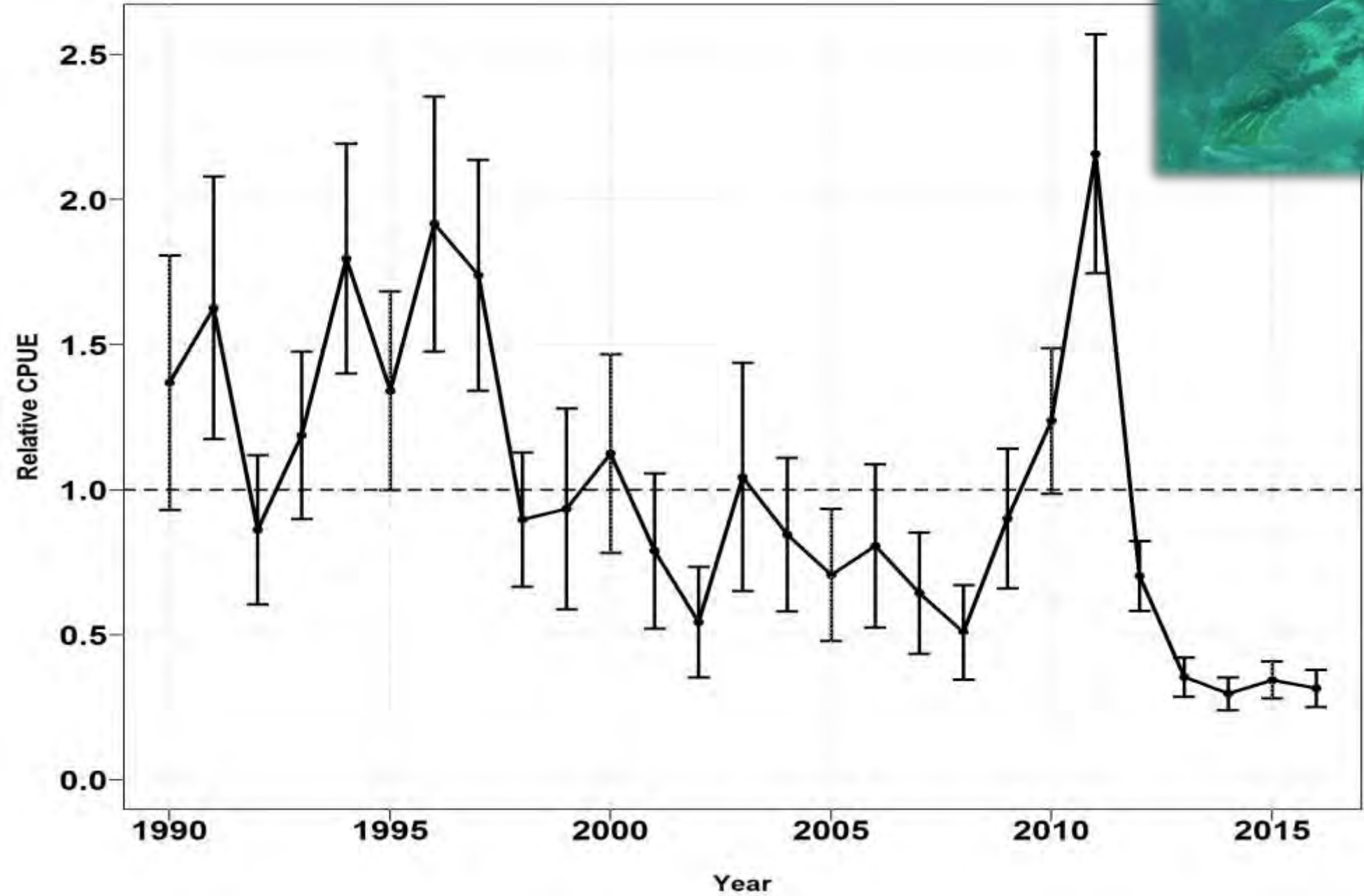
Red Porgy - Chevron Video Trap

Gag - Chevron Video Trap

Red Grouper - Chevron Video Trap
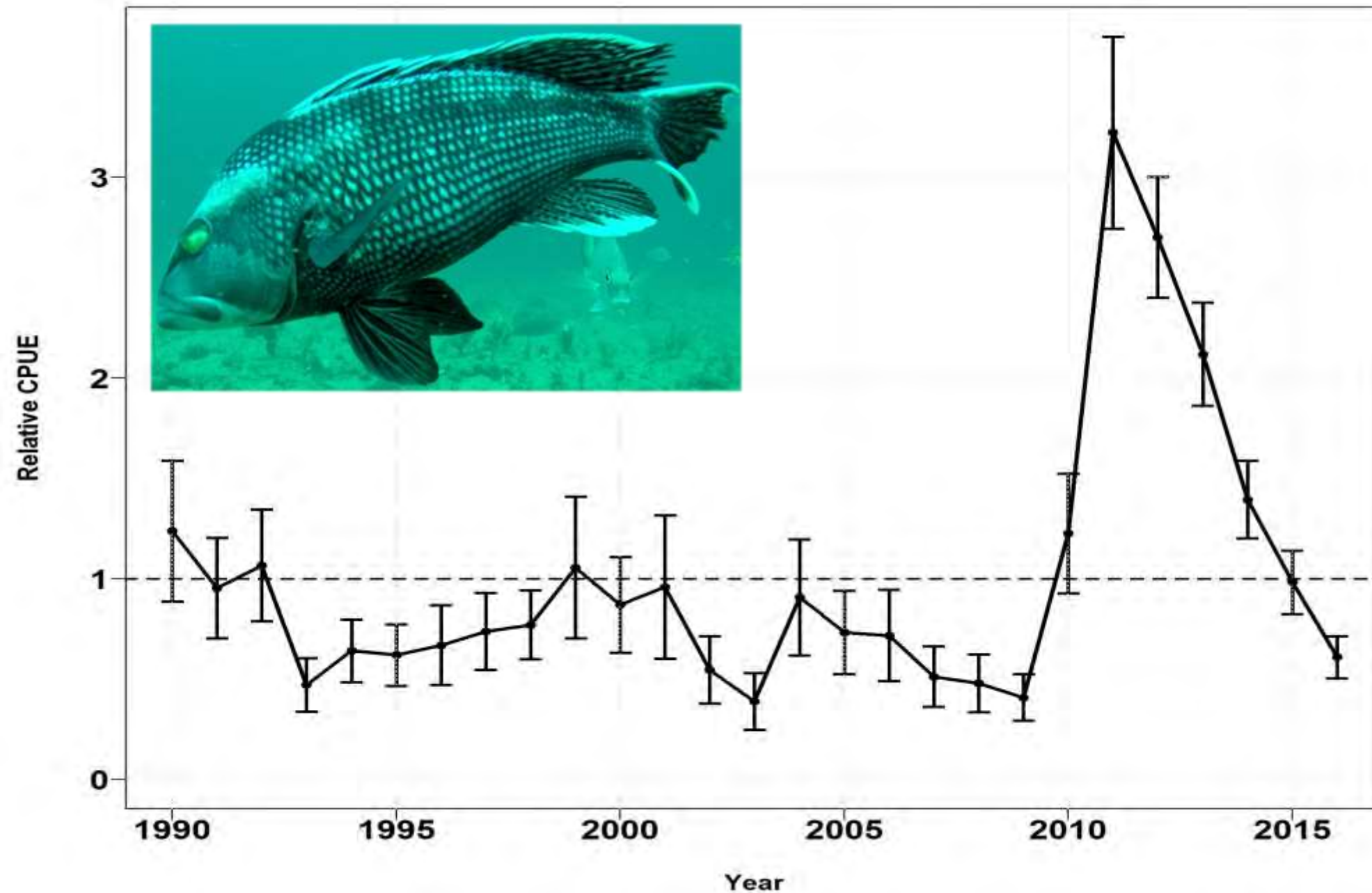
Scamp - Chevron Video Trap

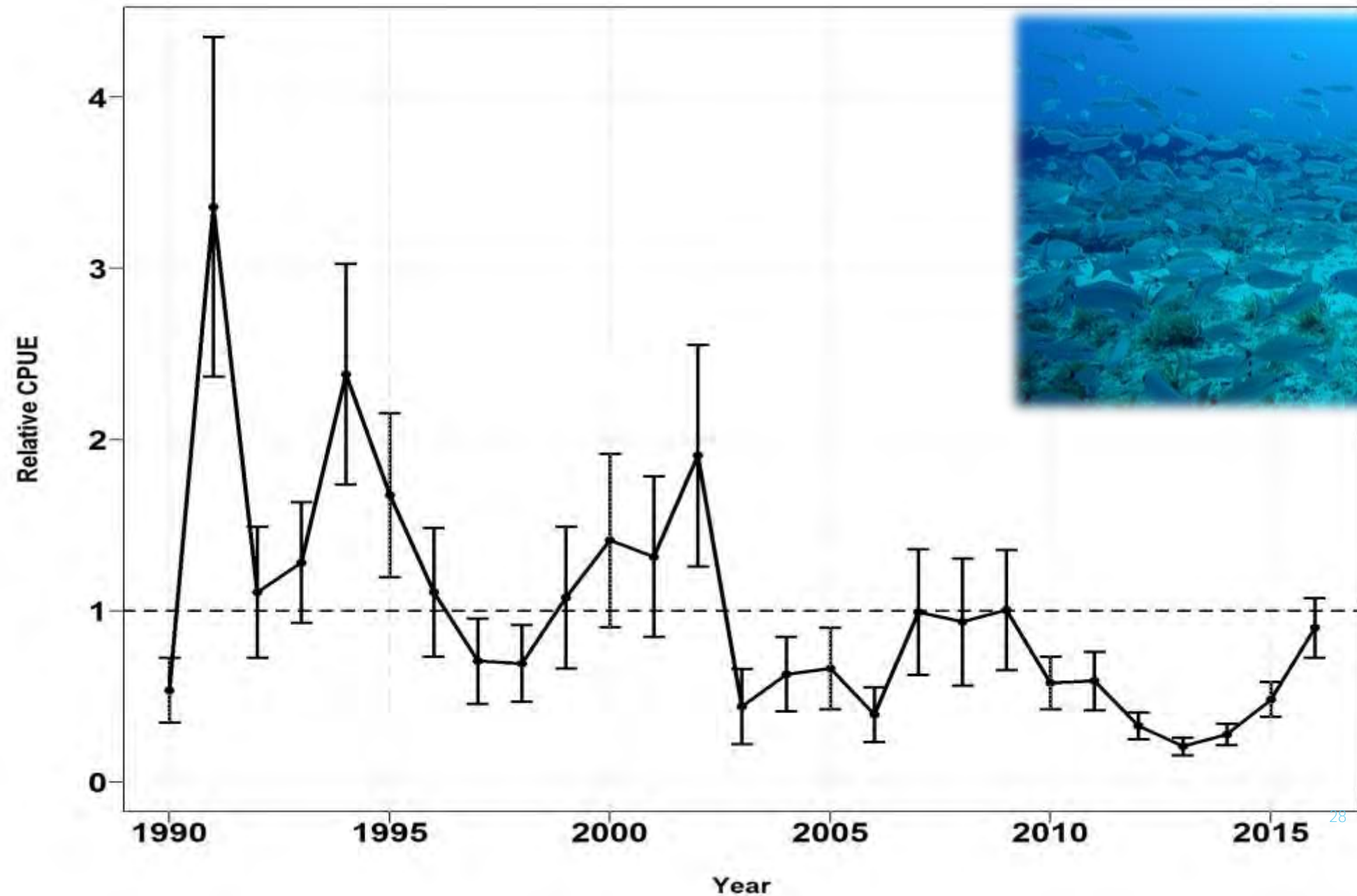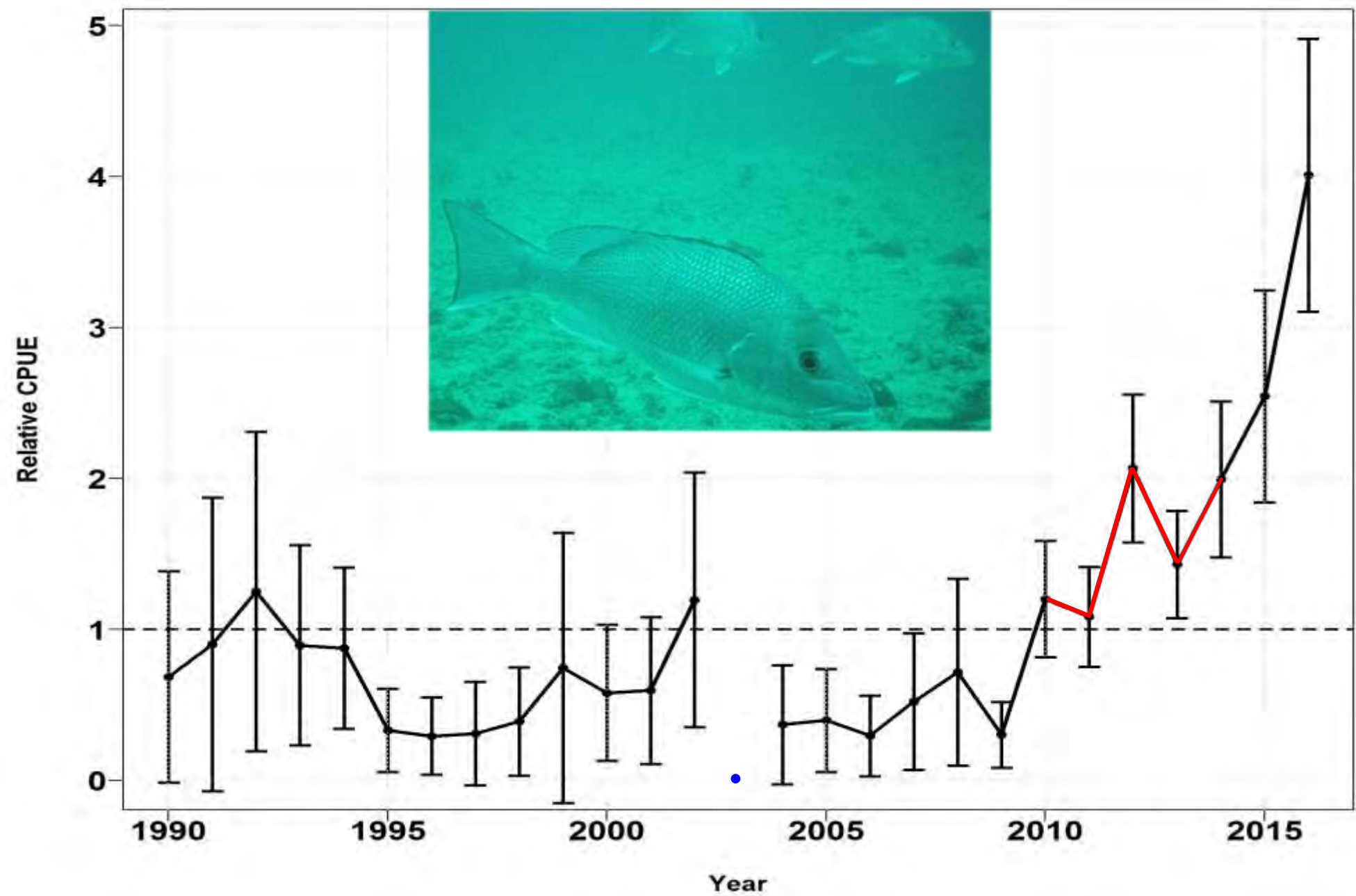# Bank Sea Bass - Chevron Video Trap

Black Sea Bass - Chevron Video Trap

Vermilion Snapper – Chevron Video Trap

Red Snapper - Chevron Video Trap

2017 Reef Fish Monitoring update

Sampling Season:

April 24th – October 20th (2 cruises completed)

MARMAP and SEAMAP-SA funding:

July 1, 2017 – June 30, 2018: unknown

2017 trends report:
Use Zero Inflated Negative Binomial (ZINB)
methodology for all species

Acknowledgements:

Walter Bubley,
Joseph Ballenger,
Tracey Smart

MARMAP/SEAMAP-SA/SEFIS
Staff & Students
Research Vessel Crews

Past and present

Questions?