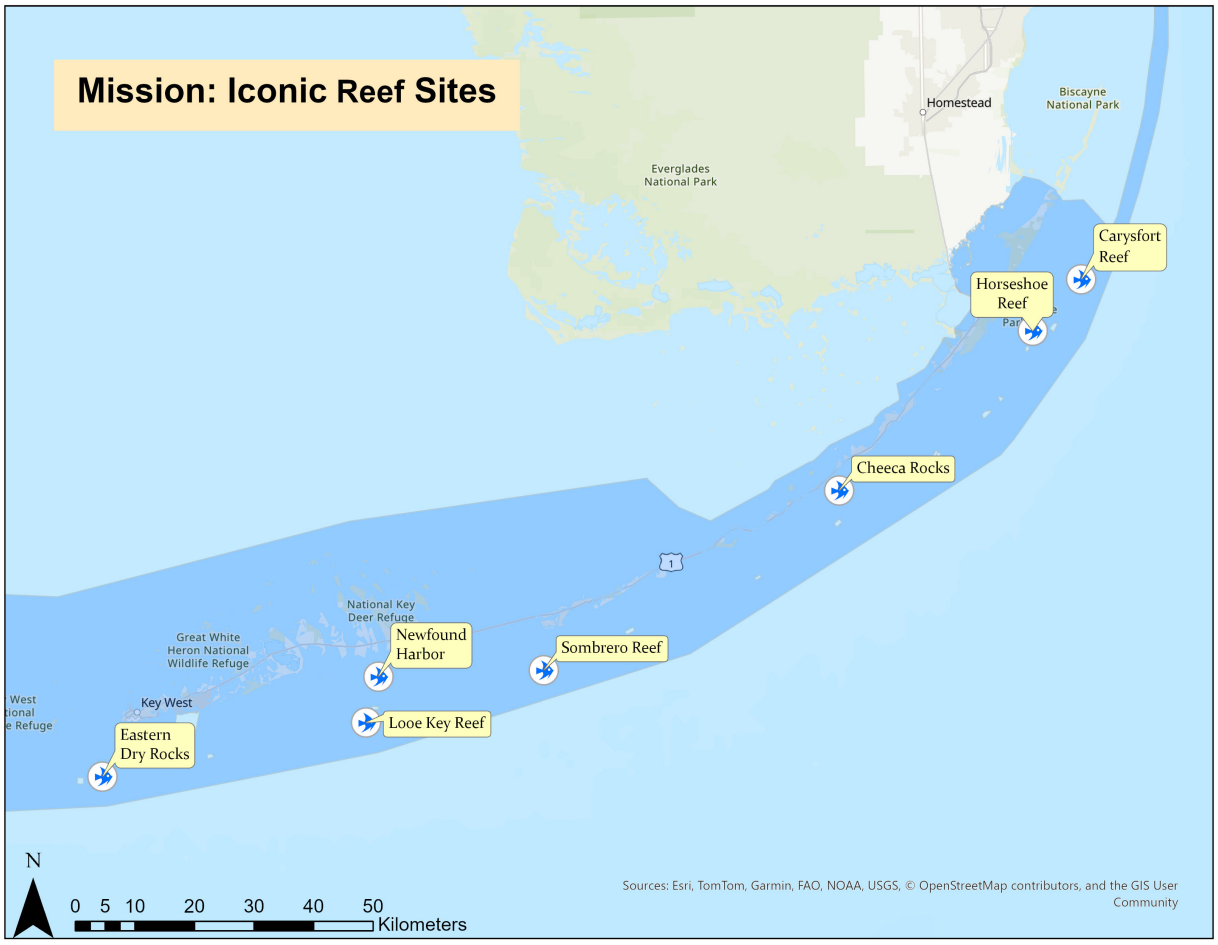
Mission: Iconic Reef

Jeremiah Blondeau + Rob Harper

10 April 2025

Contents



0.1 The Data

The RVC, stationary-point-count method is modified from Bohnsack and Bannerot (1986) and is conducted on shallow (<100ft), hardbottom coral reef habitats. Field surveys use a one-stage design to sample 50 m x 50 m grid cells selected using a stratified-random sampling allocation. This data set represents sample locations in the Florida Keys. Only those strata types found within the MIR areas were considered (table 1).

Table 1: Site Description

Study Area	Strata Name	Strata Description	Sample Number
Outside	FK01	inshore reefs, all depths	15
Outside	FK02	mid-channel patch reefs, all depths	170
Outside	FK03	offshore patch, all depths	96
Outside	FK04	forereef, low rugosity, <12m	181
Outside	FK05	forereef, high rugosity, <12m	167
Inside	FK01	inshore reefs, all depths	12
Inside	FK02	mid-channel patch reefs, all depths	25
Inside	FK03	offshore patch, all depths	15
Inside	FK04	forereef, low rugosity, <12m	20
Inside	FK05	forereef, high rugosity, <12m	125

0.2 Fish Species

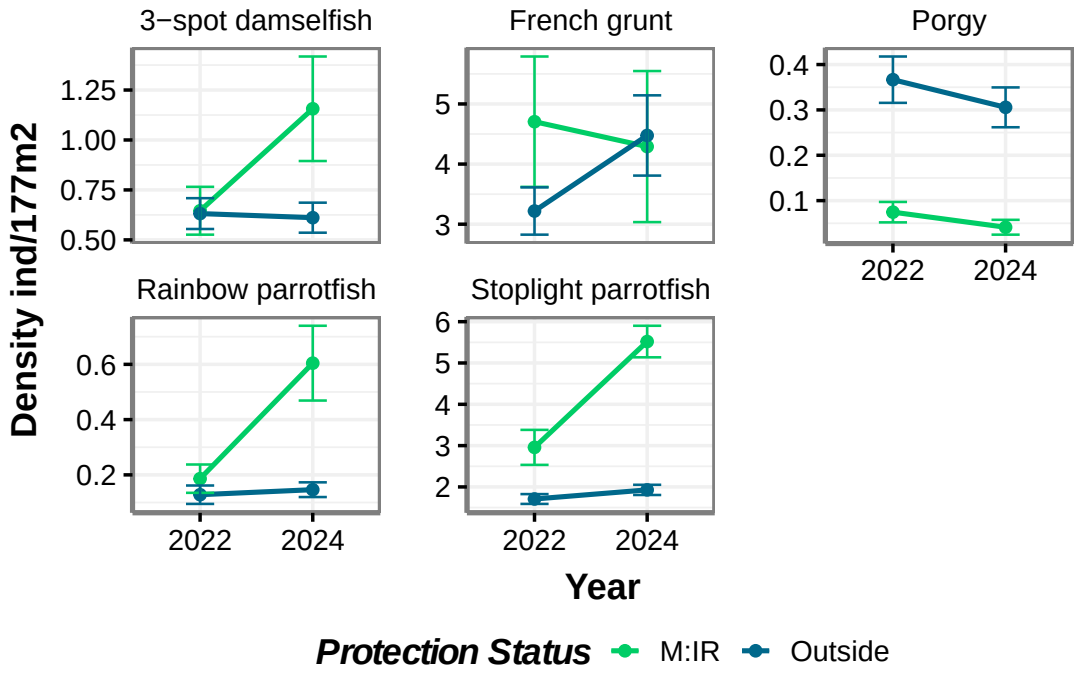
A selection of fish species were chosen to represent different trophic levels and functional roles.

Table 2: Species List

Species CD	Common Name	Scientific Name
HAE FLAV	French grunt	*Haemulon flavolineatum*
SPA VIRI	Stoplight parrotfish	*Sparisoma viride*
SCA GUAC	Rainbow parrotfish	*Scarus guacamaia*
STE PLAN	3-spot damselfish	*Stegastes planifrons*
CAL CALA	Porgy	*Calamus calamus*
CAL NODO	Porgy	*Calamus nodosus*

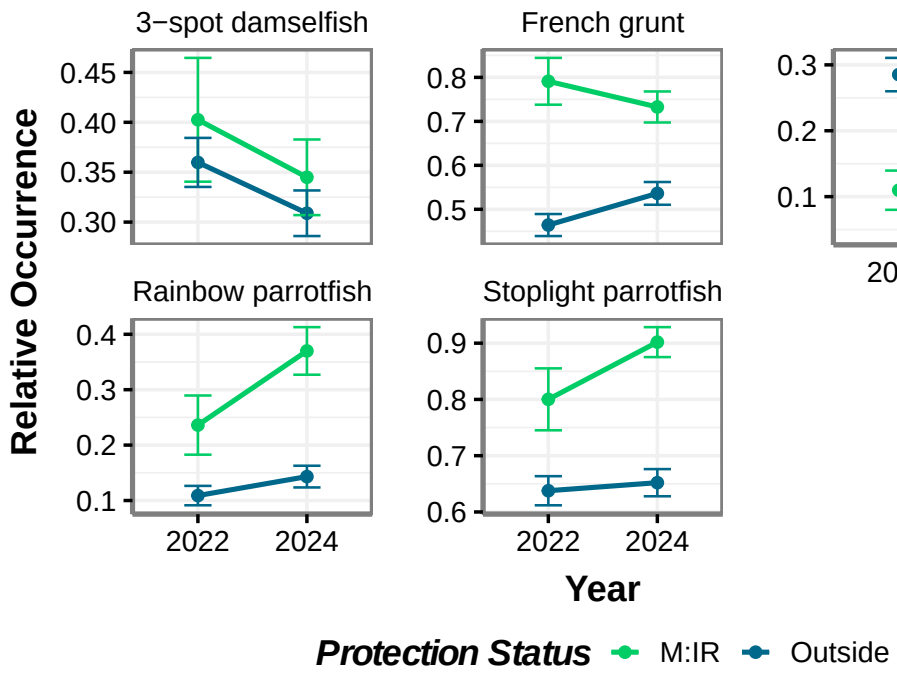
0.3 Density

Density is represented as the number of individuals per 177 m^2.



0.4 Occurrence

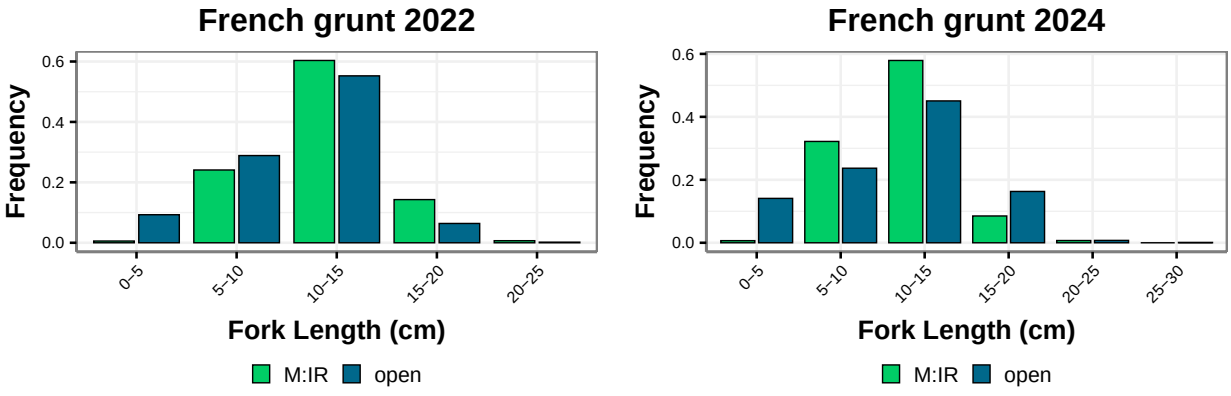
Survey occurrence within MIR sites and outside.



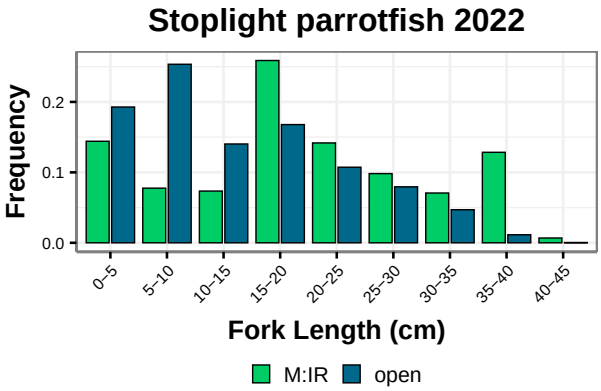
0.5 Length Frequency

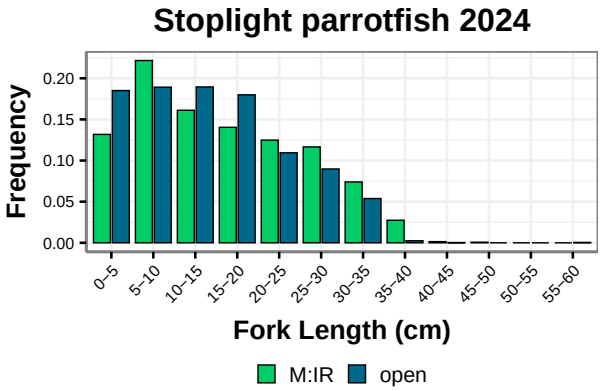
Relative length frequency of species within MIR sites and outside.

0.5.1 French Grunt

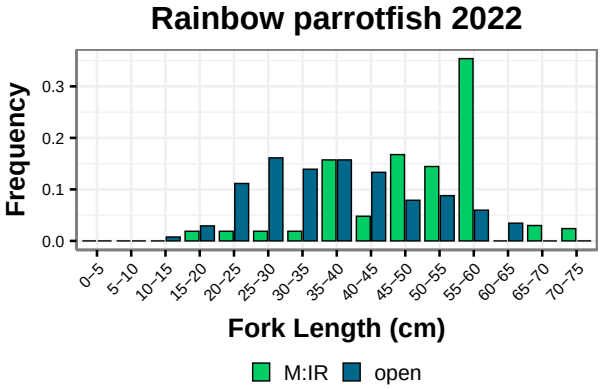


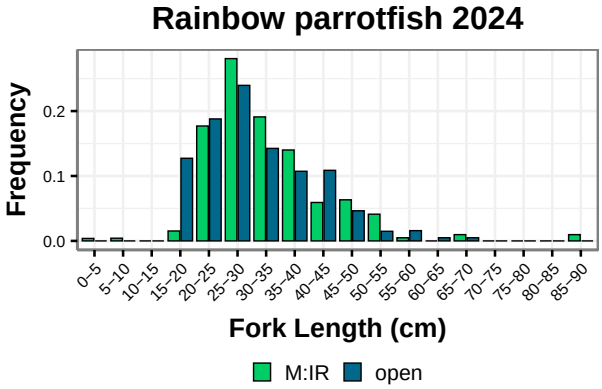
0.5.2 Stoplight Parrotfish



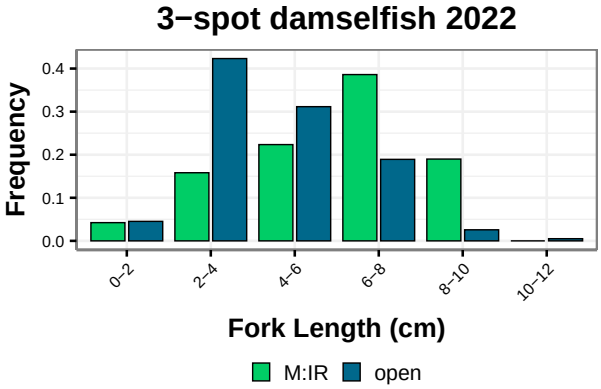


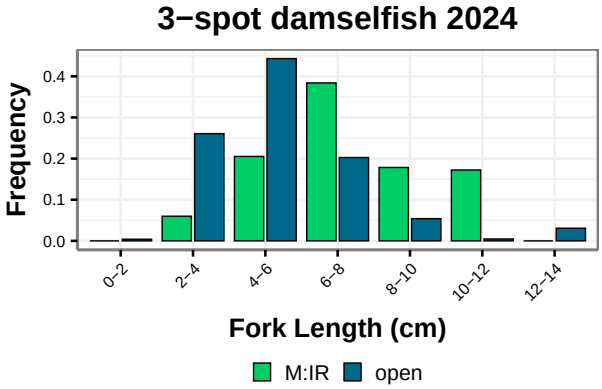
0.5.3 Rainbow Parrotfish



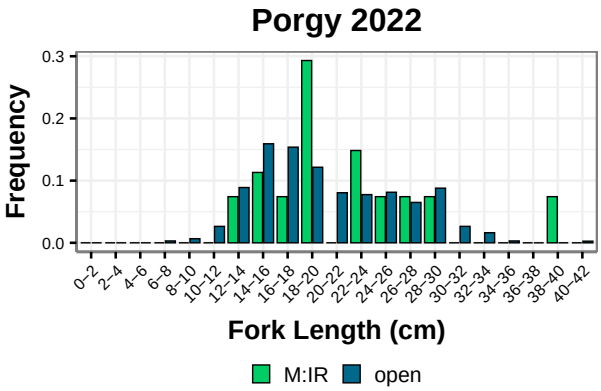


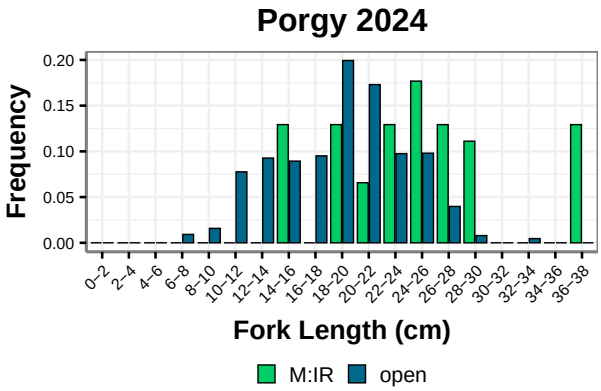
0.5.4 3-Spot Damselfish





0.5.5 Porgy


Porgy 2022
Frequency
0.3
0.2
0.1
0.0
0–2
2–4
4–6
6–8
8–10
10–12
12–14
14–16
16–18
18–20
20–22
22–24
24–26
26–28
28–30
30–32
32–34
34–36
36–38
38–40
40–42
Fork Length (cm)
M:IR
open


Porgy 2024
Frequency
0.20
0.15
0.10
0.05
0.00
0–2
2–4
4–6
6–8
8–10
10–12
12–14
14–16
16–18
18–20
20–22
22–24
24–26
26–28
28–30
30–32
32–34
34–36
36–38
Fork Length (cm)
M:IR
open