Identifying Factors Affecting Protandric Transition in *Centropomus undecimalis*, the Common Snook

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Importance of Snook



C. undecimalis

- Inhabits wide range of habitats
- Freshwater
- Saltwater
- Coastal estuaries
- Offshore reefs







Sequential Hermaphrodites











Common Snook (Centropomus undecimalis). Adapted from "Snook," by D. R. Peebles, Florida Fish and Wildlife Conservation Commission. Retrieved March 31, 2019, from https://myfwc.com/fishing/saltwater/recreational/snook/. Copyright 1992.



Probability of Sex Change









Objective:

•To explore how habitat influences sex change

• Calculate sex ratios on temporal and spatial scales LORIDA

Area of Focus

Receiver Array









Florida Gap





Jensen Beach

Snook Home Range Overlap



Jensen Beach

Port Salern

St. Lucie

Palm City

Snook Home Range Overlap

North Fork

2009 nonspawning = 50% 2010 nonspawning = 70% 2011 nonspawning = 50%

> 2009 nonspawning = 65% 2010 nonspawning = 68% 2011 nonspawning = 36%

> > South Fork

North of St. Lucie

South of St. Lucie

St. Lucie Inlet

Jensen Beach

Port Salerr

Snook Home Range Overlap

2009 nonspawning = 47%

2010 nonspawning = 26%

2011 nonspawning = 31%

Palm City

St. Lucie

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2009 nonspawning = 40%2010 nonspawning = 55%2011 nonspawning = 32%

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> > South Fork

2009 nonspawning = 40% 2010 nonspawning = 55% 2011 nonspawning = 32%

Port Salerr

Jensen Beach

North of St. Lucie

2009 nonspawning = 26% 2010 nonspawning = 47% 2011 nonspawning = 60%

South of St. Lucie

St Lucie Inlet







Future Considerations

- Variation in sex ratios could be from transition or potential bias in the data
- More extensive analysis still needs to be completed
- Identifying influential environmental factors

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Questions