Vertical Line Survey
Gear Comparison

GULF STATES MARINE FISHERIES COMMISSION
68th Annual Meeting
SEAMAP Subcommittee
October 17, 2017
Rig was designed to target red snapper

- Uses a heavy monofilament mainline
- Monofilament backbone
- 10 furled gangions
Mainline: 400lb monofilament

Backbone: 400lb monofilament, 24ft total line

24" between sleeves

10 Gangions:
- 100lb monofilament
- Doubled and twisted
- Circle hooks (8, 11, 15/0)

Swivel sleeve: Size 2/0
2.3mm

24" between last sleeve and weight

Weight: 10lb

Fished for 5 min at depth
Gear Limitations

- Overconstructed
  - Heavy, highly visible gear
  - Heavy mono weight, furled gangions, heavy weight
- Number of gangions (10)
  - Results in swarming behavior
  - May not capture diversity of the site
- Hook Size
  - 15/0 is covered by BLL
- Fishing Time (5min)
  - May result in loss of fish (predation, dehooking)
  - May not capture the diversity of the site
Spectra Line

• Implemented 150 lb spectra line as the mainline

• Backed with monofilament (to prevent the spectra from spinning on the reel)

• Creates less drag in currents

• Results in less bowing of the line

• Results in more accurate fishing feature

• Dangerous – does not stretch
Bait

- Cut squid
- Whole squid
- Live hardtail, pinfish

- Driggers et al. 2017. Influence of bait type on catch rates of predatory fish on longline gear. *Fisheries Bulletin*
- Northern shortfin squid, Atlantic mackerel
- Sharks preferred mackerel
- No difference in teleost catch
Planned Gear Test
Mainline: 400lb monofilament

Backbone: 400lb monofilament, 24ft total line

24” between sleeves

18”

10 Gangions:
• 100lb monofilament
• Doubled and twisted
• Circle hooks (8, 11, 15/0)

Swivel sleeve: Size 2/0
2.3mm

36” between last sleeve and weight

Weight: 10lb

Mainline: 250lb spectra line

Backbone: 200lb monofilament, 10-15ft

24” between sleeves

4 Gangions:
• 100lb monofilament
• Single line
• Circle hooks (8, 11/0)

Sleeve with no swivel
Size 2/0 2.3mm

12”

Weight: 10lb
Planned Comparison

• Compare the spectra rigs to the SEAMAP rigs

• Fish an equivalent number of spectra and SEAMAP stations

• Conduct 5 drops depletion style at each station using only one rig type

• Fish an equivalent number of artificial and natural bottom sites
Planned Comparison

- Fish the 8/0 and 11/0 backbones of the same line type simultaneously
  - Eliminate the 15/0 due to coverage on BLL
- Use cut squid as bait
- Use a standard 1 minute fish for both line types
Results to Date
Results to Date

- August 22, 2017
- 2 stations at the Alps
  - 11/0  Braid  no catch
  - 8/0   Braid  no catch
  - 11/0  Mono  no catch
  - 8/0   Mono  no catch
- 2 stations on a salt dome
  - 11/0  Braid  no catch
  - 8/0   Braid  no catch
  - 11/0  Mono  no catch
  - 8/0   Mono  no catch
Discussion

- Alter protocol for experimental?
- Change spectra strength or strand number?
- Do we want to add a smaller hook size? 1/0?
- Funding for pilot study?
- Results would meet some of the goals for CRP and MARFIN
Mainline: 250lb spectra line

Backbone: 200lb monofilament, 10-15ft

24” between sleeves

4 Gangions:
- 100lb monofilament
- Single line
- Circle hooks (11/0)

Sleeve with no swivel
Size 2/0 2.3mm

36” between last sleeve and weight

Weight: 4lb

Mainline: 250lb spectra line

Backbone: 200lb monofilament, 10-15ft

24” between sleeves

4 Gangions:
- 100lb monofilament
- Single line
- Circle hooks (8/0, 11/0)

Sleeve with no swivel
Size 2/0 2.3mm

36” between last sleeve and weight

Weight: 4lb
Species Caught

- Red Snapper
- Amberjack
- Scamp
- Trigger
- Vermilion Snapper
- Gag Grouper
- Red Porgy
- Lane Snapper
- Almaco Jack
- Tomtate
- Yellowedge Grouper
- Spanish Flag

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<th>Species</th>
<th>Bait</th>
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<tbody>
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<td>Cut squid, cut bait</td>
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<tr>
<td>Amberjack</td>
<td>Live hardtail</td>
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<tr>
<td>Scamp</td>
<td>Whole squid, live pinfish</td>
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