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# Results from the Underwater Camera Survey of the 49 Fathom Pinnacle and Snakehead Bank Sites near Kodiak Island, Alaska

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# Results from the Underwater Camera Survey of the 49 Fathom Pinnacle and Snakehead Bank Sites near Kodiak Island, Alaska

by

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## **ABSTRACT**

The distribution of federally managed fish species in the Gulf of Alaska and identification of essential fish habitat is poorly understood. Several commercially important fish species are associated with rocky substrates which is also ideal habitat for structure-forming invertebrates such as coral and sponge. However, it is not known whether the additional complexity of rocky substrates with structure-forming invertebrates increases fish abundance or if bare, rocky substrate alone (e.g., boulders) attracts similar numbers of fishes. Two sites were selected off of Kodiak Island in the Gulf of Alaska and 40 underwater camera transects were deployed to assess benthic habitat and fish density. The data extracted from the images included substrate classifications as well as coral, sponge, and fish counts and identification.



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## INTRODUCTION

The distribution of federally managed fish species in the Gulf of Alaska and identification of essential fish habitat as it pertains to structure-forming invertebrates (SFI) is poorly understood. General agreement suggests that Pacific cod (*Gadus macrocephalus*) are often collected in muddy, sandy, or low-relief habitats without vertical structures (Miller et al. 1976, Garrison and Miller 1982, Palsson 1990, Brodeur et al. 1995); whereas, pollock (*Gadus chalcogrammus*) distribution follows ideal temperature, light, and prey availability (Bailey 1989, Swartzman et al. 1999, Sogard and Olla 1996, Brodeur et al. 1997). Rockfishes (Sebastidae) and Atka mackerel (*Pleurogrammus monopterygius*) are largely associated with rocky or high relief substrates (Matthews and Richards 1991, Love et al. 1991, Stein et al. 1992, Yoklavich et al. 2000). These same substrates are also ideal habitats for SFI such as corals and sponges (Heifetz et al. 2005, Stone and Shotwell 2007, Rooper et al. 2016). There is evidence that high relief habitats containing biotic structures like sponge and coral may be particularly valuable for some fish species (Rooper and Boldt 2005, Stone 2006, Rand and Lowe 2011). Alaska Fisheries Science Center trawl survey data indicate several rockfish species in Alaska waters are associated with gorgonian, cup, and hydrocorals (Heifetz 2002). Juvenile Pacific ocean perch and other rockfishes have been observed to have strong associations with SFI including corals and sponges (Carlson and Straty 1981, Freese and Wing 2003), with one study indicating most individuals occur within a meter of structural habitat (Rooper et al. 2007). In addition, Atka mackerel spawning and feeding grounds in the Aleutian Islands seem to overlap with high-density communities of sponges (Cooper and McDermott 2011, Rand and Lowe 2011, Goddard et al. 2017, Wilborn et al. in review).

The importance of coral and sponge habitat to federally managed fish species, as compared to other non-biotic complex structures (e.g., boulders), remains unknown. High relief or complex habitats may provide a refuge from strong currents, protection from predators, and increased prey availability. All these potential benefits may be increased in habitats that also include SFI, as these structures likely increase the overall complexity of the habitat. As stationary, slow-growing organisms, corals and sponges are particularly vulnerable to fishing gear (Heifetz et al. 2009) and environmental changes (Hourigan 2009) further highlighting the need to understand their connection to commercially important fish species.

This report summarizes density and abundance data collected for NPRB Project 1204 and the Alaska Coral and Sponge Initiative from 2012 to 2014; specifically, fish, coral, and sponge densities and their associated primary substrate types for each site (See Transect Summaries for 49 Fathom Pinnacle and Snakehead Bank). For a full analysis of the entire dataset (including rockfish-habitat associations), see Conrath et al. 2016.

## **METHODS**

### **Survey Design and Field Sampling**

Three research cruises were conducted during the months of August 2012, May 2014, and December 2014 (Appendix Table A). There were 40 underwater camera transects completed across these three cruises at two sites, the 49 Fathom Pinnacle and Snakehead Bank (Fig. 1). The 49 Fathom Pinnacle site was sampled on all three dates, while the Snakehead Bank site was sampled for the 2014 dates. From August 16 to 21, 2012, 19 camera transects were completed at the 49 Fathom Pinnacle. From May 10 to 18, 2014, 19 camera transects were

completed at the 49 Fathom Pinnacle and Snakehead Bank sampling sites and from December 3 to 15, 2014, only two camera transects were completed at the Snakehead Bank sampling site.

We utilized an underwater stereo drop camera (SDC) system described in Williams et al. (2010) to examine coral, sponge, and fish densities within 49 Fathom Pinnacle (Appendix Table B) and Snakehead Bank (Appendix Table C). Three habitat types (sand/mud, rocky with no coral or sponge, and rocky with coral and/or sponge present) were identified at each sampling site, and two to four SDC transects of approximately 1.0 - 1.5 km length were completed for each habitat type. Stereo drop camera operations and data analyses were patterned after Williams et al. (2010). The SDC is a platform with paired cameras that are calibrated and collect synchronous images allowing accurate (< 2% error) measurements of length and distances of features and organisms *in situ* (Williams et al. 2010). The SDC was either towed or drifted at slow speed (1-3 knots) maintaining position 1-2 m above the seafloor for transects of 30 to 40 minutes. Since the cameras are mounted looking forward at an angle of approximately 35 degrees off horizontal toward the seafloor, the SDC is capable of providing images with a path width of 2.4 m at a height off the seafloor of 2-3 m. Under typical conditions and lighting, the camera allows the observation and enumeration of fish to approximately 4 m in front of the camera. Paired images were collected at a rate of 30 frames per second over the length of the transect under continuous lighting from one LED and one halogen light.

### **Image Analysis**

The data extracted from the images included substrate classifications as well as coral, sponge, and fish counts and identification. The substrate was classified as mud, sand, pebble, cobble, boulder, low exposed bedrock, or high relief bedrock according to the methodology of

Stein et al. (1992) and Yoklavich et al. (2000). All soft corals (Alcyonacea), pennatulaceans (Pennatulacea) and hydrocorals (Anthoathecata) were typically identified to family, black corals (Antipatharia) to order, and sponges (Porifera) to class (Stone 2014). Each fish was identified to the lowest taxonomic level possible, but for the purpose of this report were grouped by family. In order to examine the density of fish, coral, and sponge within each habitat type, we utilized area-swept techniques to calculate density in the SDC transects. The density of fish and structure-forming invertebrates found in each SDC transect was calculated by determining the number of organisms counted in the transect divided by the area observed (transect length \* path width) in the images. The path width was assumed to be 2.43 m (based on Rooper et al. 2010) and the distance the SDC travelled was calculated using the position of the camera when it reached bottom and the position when the camera was lifted off the bottom.

## RESULTS

### 49 Fathom Pinnacle Site Summary

Within the 49 Fathom Pinnacle site, 28 transects were assessed for fish, decapod, coral, and sponge abundance, as well as substrate type (see Transect Summaries: 49 Fathom Pinnacle). Fish fauna at the 49 Fathom Pinnacle site largely consisted of Sebastidae ( $n = 3,870$ , Fig. 2), and overall fish density for the site was  $7.06 \text{ individuals} * 100 \text{ m}^{-2} \pm 0.98$  (Table 1). Hydrocorals were the dominant benthic feature for this site; at densities of  $98.78 \text{ individuals} * 100 \text{ m}^{-2} \pm 30.92$  (Table 1), they comprised 90% ( $n = 46,079$ ) of all identified structure-forming invertebrates (Fig. 3). Hexactinellid sponges were also frequently observed within this area. Mean density for all benthic structures was  $106.16 \text{ individuals} * 100 \text{ m}^{-2} \pm 31.07$ . Substrate composition at the 49 Fathom Pinnacle site was diverse, with 43% of primary substrates

identified as mixed coarse (Fig. 4). Low bedrock accounted for another 16% of substrates identified. Over 59% of primary substrates at this site were suitable for coral or sponge attachment.

### **Snakehead Bank Site Summary**

Within the Snakehead Bank site, 12 transects were assessed for fish, decapod, coral, and sponge abundance, as well as substrate type (see Transect Summaries: Snakehead Bank). Fish fauna at the Snakehead Bank site also largely consisted of Sebastidae ( $n = 2,027$ , Fig. 5), and overall fish density for the site was  $15.46 \text{ individuals} * 100 \text{ m}^{-2} \pm 8.84$  (Table 2). Over half (58%) of all identified structure-forming invertebrates were primnoid corals ( $n = 939$ , Fig. 6) with densities of  $6.76 \text{ individuals} * 100 \text{ m}^{-2} \pm 2.90$  (Table 2). Hexactinellid sponges were again frequently observed within this area, as were stylasterid hydrocorals. Mean density for all benthic structures was  $10.14 \text{ individuals} * 100 \text{ m}^{-2} \pm 3.38$ . Substrate composition at the Snakehead Bank site was split evenly between sand (39%) and mixed coarse (39%), with pebble and low bedrock contributing another 20% to primary substrate type (Fig. 7). Approximately 48% of primary substrates at this site were suitable for coral or sponge attachment.

Individual transect results for 49 Fathom Pinnacle and Snakehead Bank are presented in two summary sections (see Contents). Each transect summary contains fish, coral, and sponge counts and density as well as the primary substrate composition for that transect.



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Table 1. -- Fish, crab, and structure-forming invertebrate mean densities for 28 transects from the 49 Fathom Pinnacle site.

<b>Family</b>	<b>Mean Density (ind.*100 m<sup>-2</sup>)</b>	<b>±SE</b>
<b>Decapod</b>	<b>0.00</b>	<b>0.00</b>
Decapoda	0.00	0.00
<b>Fish</b>	<b>7.06</b>	<b>0.98</b>
Bathymasteridae	0.24	0.05
Gadidae	0.00	0.00
Hexagrammidae	0.03	0.01
Osteichthyes	0.89	0.12
Pleuronectidae	0.03	0.01
Rajidae	0.01	0.01
Sebastidae	5.84	0.99
Zaproridae	0.01	0.01
<b>Hydrocoral</b>	<b>98.78</b>	<b>30.92</b>
Stylasteridae	98.78	30.92
<b>Soft Coral</b>	<b>1.13</b>	<b>0.30</b>
Acanthogorgiidae	0.00	0.00
Alcyonacea	0.00	0.00
Primnoidae	1.13	0.30
<b>Sponge</b>	<b>6.25</b>	<b>1.02</b>
Calcarea	0.00	0.00
Demospongiae	1.54	0.38
Hexactinellida	4.69	0.80
Porifera	0.02	0.02

Table 2. -- Fish, crab, and benthic habitat mean densities for 12 transects from the Snakehead Bank site.

<b>Family</b>	<b>Mean Density (ind. *100 m<sup>-2</sup>)</b>	<b>±SE</b>
<b>Fish</b>	<b>15.46</b>	<b>8.84</b>
Bathymasteridae	0.41	0.15
Hexagrammidae	0.29	0.20
Osteichthyes	0.78	0.29
Pleuronectidae	0.07	0.04
Rajidae	0.00	0.00
Sebastidae	13.90	8.64
<b>Hydrocoral</b>	<b>1.09</b>	<b>0.93</b>
Stylasteridae	1.09	0.93
<b>Pennatulacean</b>	<b>0.05</b>	<b>0.03</b>
Halipteridae	0.01	0.01
Pennatulacea	0.03	0.02
Pennatulidae	0.01	0.01
<b>Soft Coral</b>	<b>6.76</b>	<b>2.90</b>
Plexauridae	0.02	0.02
Primnoidae	6.75	2.89
<b>Sponge</b>	<b>2.24</b>	<b>0.80</b>
Calcarea	0.08	0.08
Demospongiae	0.22	0.10
Hexactinellida	1.94	0.73

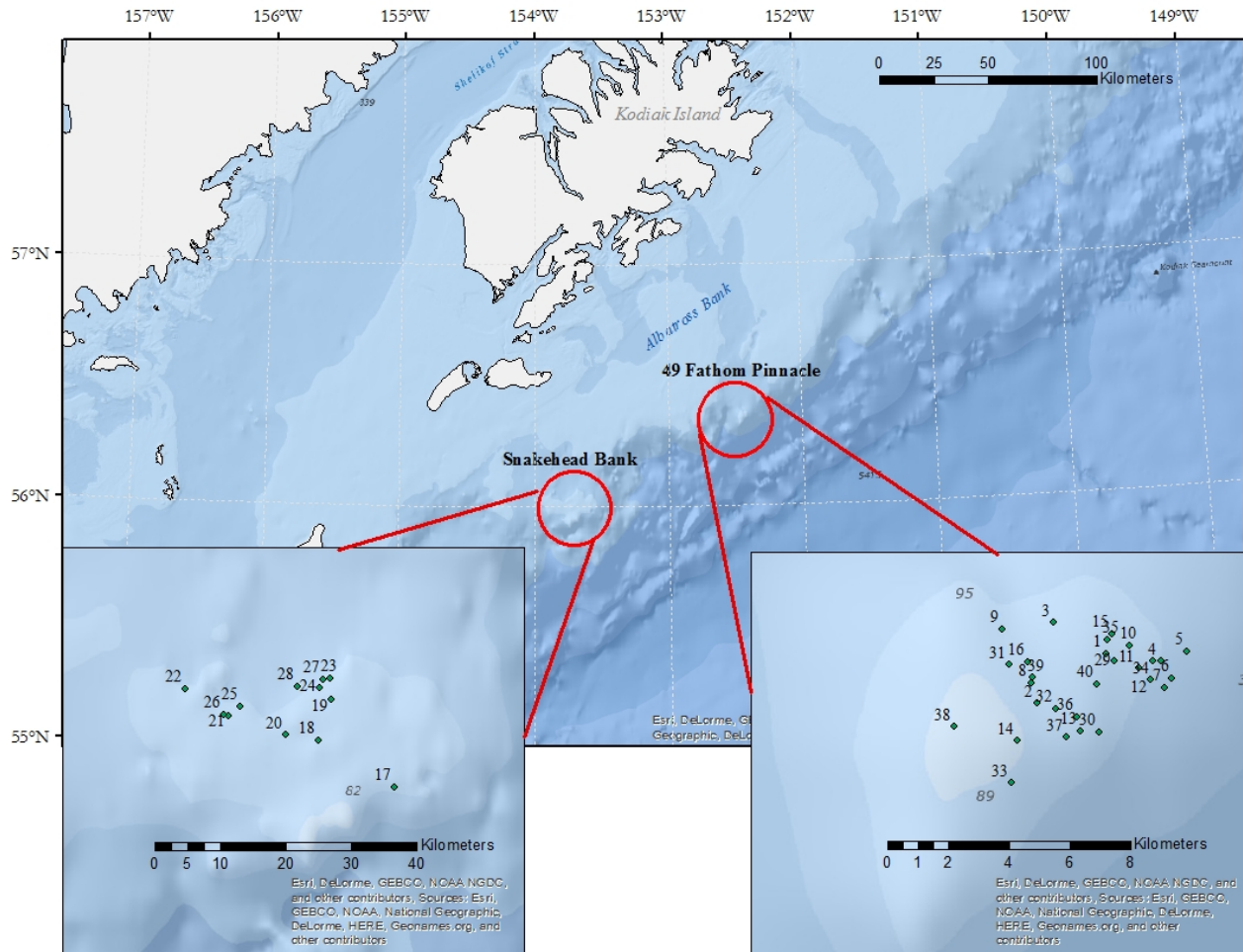


Figure 1. -- Sampling sites (49 Fathom Pinnacle and Snakehead Bank) and transect numbers near Albatross Bank in the central Gulf of Alaska. Individual transects at each site shown in insets.

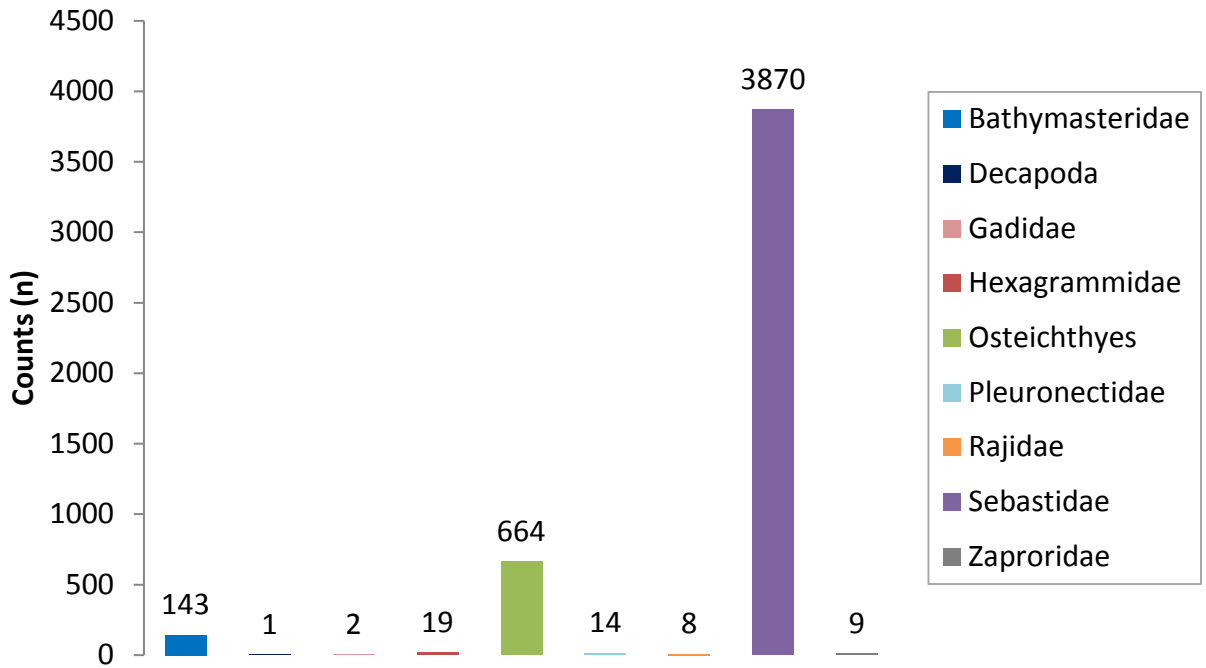


Figure 2. -- Total fish and crab counts for 28 transects from the 49 Fathom Pinnacle site.

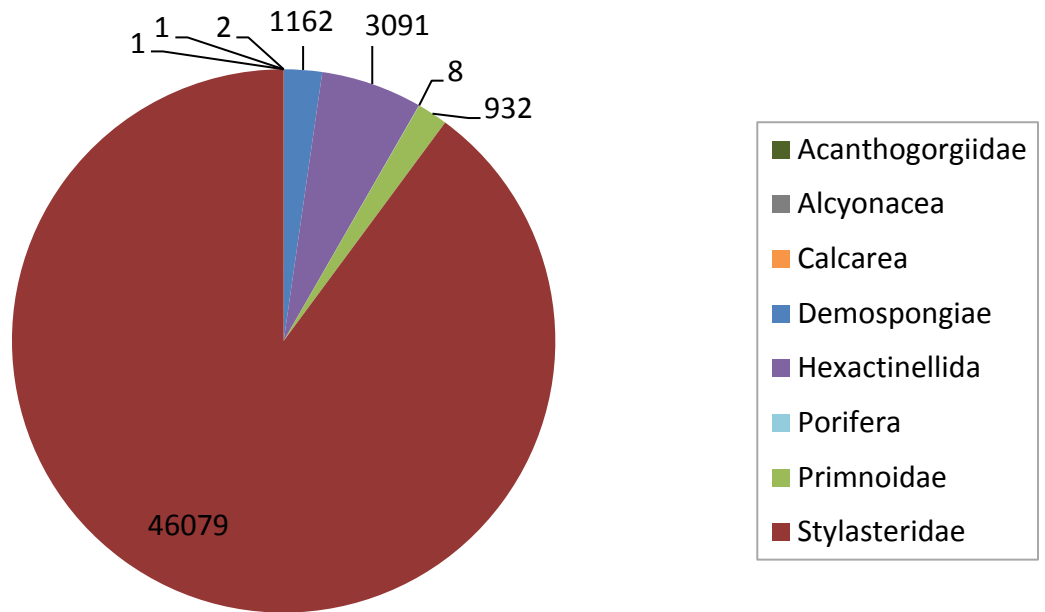


Figure 3. -- Structure-forming invertebrate counts for 28 transects from the 49 Fathom Pinnacle site.



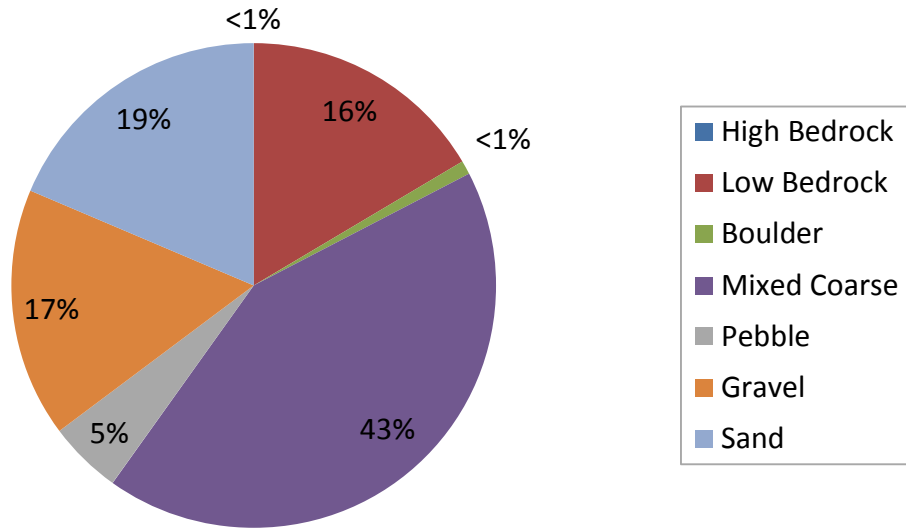


Figure 4. -- Primary substrate percent composition for all transects (n = 28) at 49 Fathom Pinnacle site.

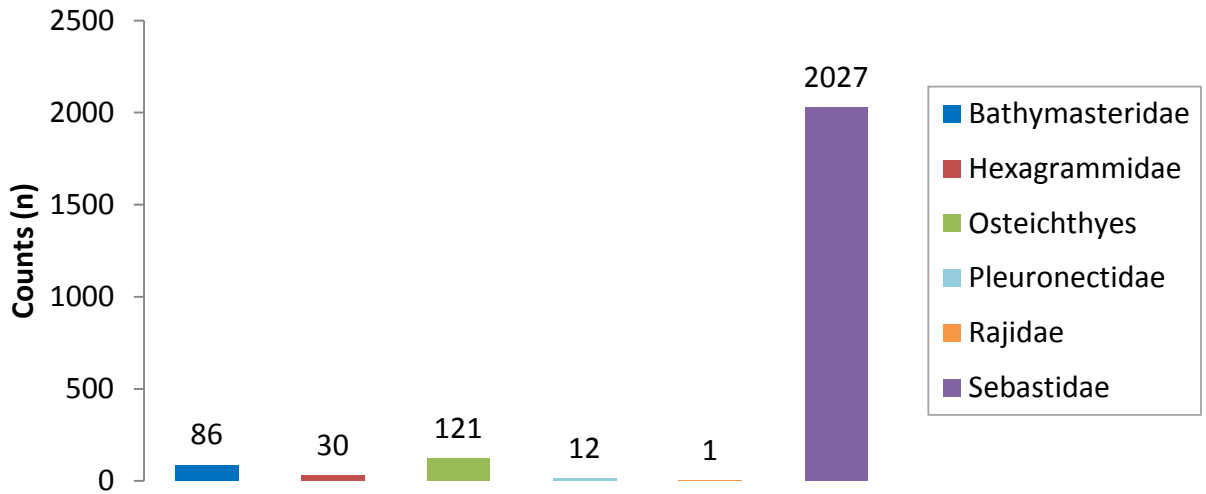


Figure 5. -- Total fish and crab counts for 12 transects from the Snakehead Bank site.

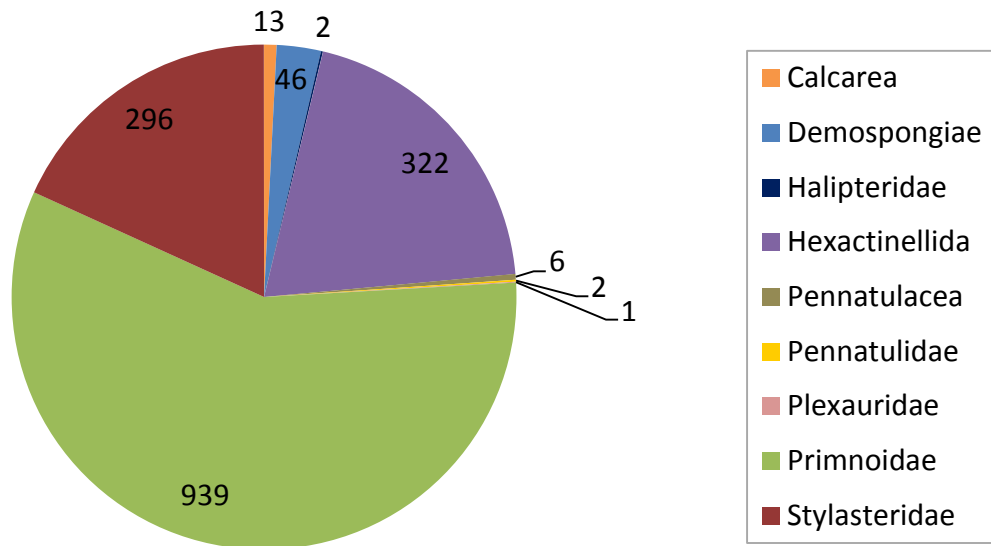


Figure 6. -- Structure-forming invertebrate counts for 12 transects from the Snakehead Bank site.

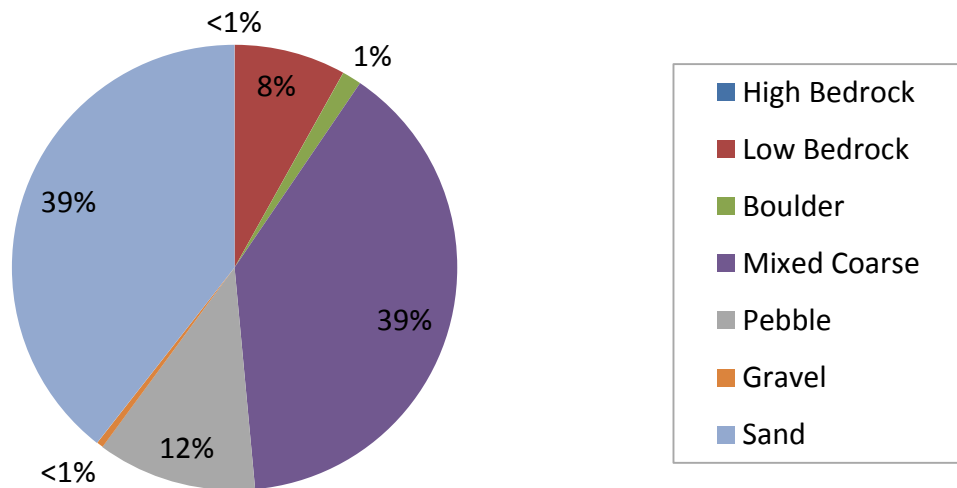
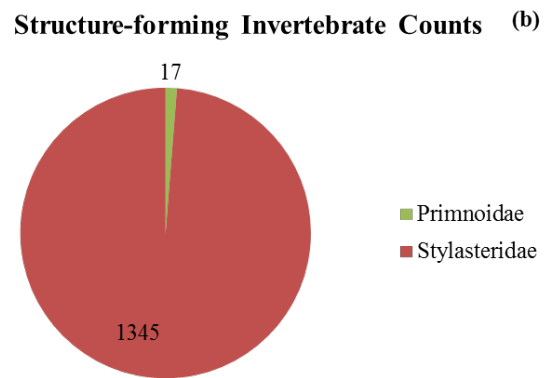
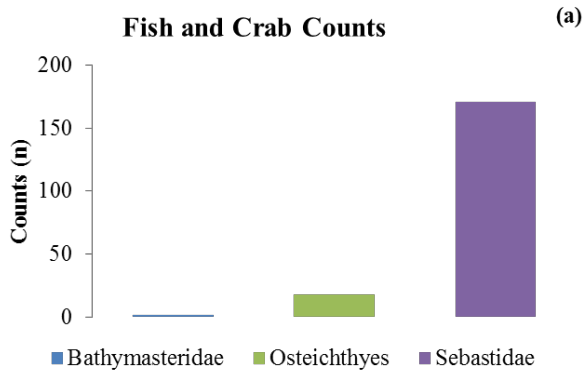


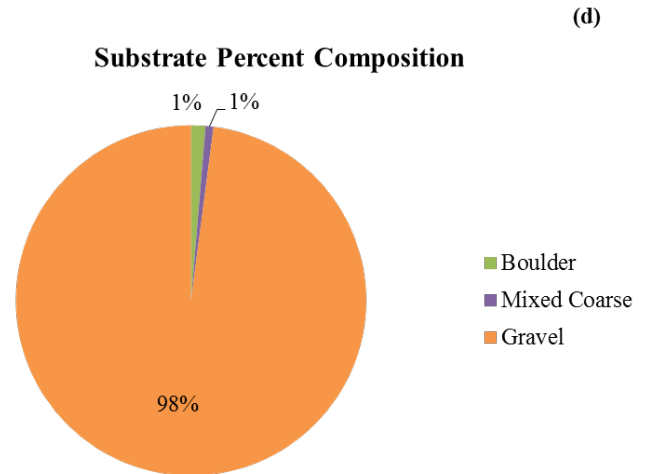
Figure 7. -- Primary substrate percent composition for all transects (n = 12) at Snakehead Bank site.

## TRANSECT SUMMARIES: 49 Fathom Pinnacle

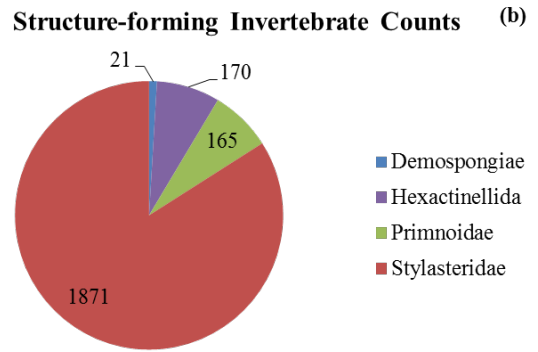
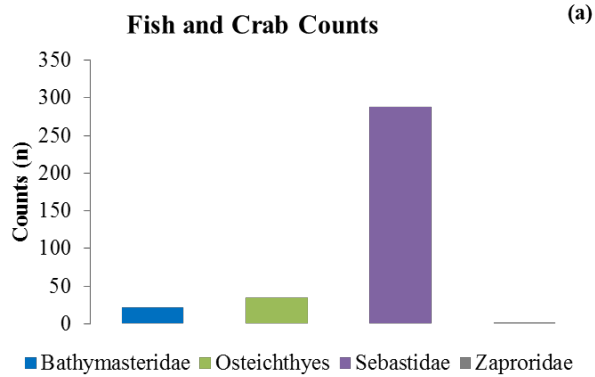


(c)

Family	Density (ind.*100 m <sup>-2</sup> )
<b>Fish</b>	<b>4.70</b>
Bathymasteridae	0.05
Osteichthyes	0.44
Sebastidae	4.20
<b>Hydrocoral</b>	<b>33.07</b>
Stylasteridae	33.07
<b>Soft Coral</b>	<b>0.42</b>
Primnoidae	0.42

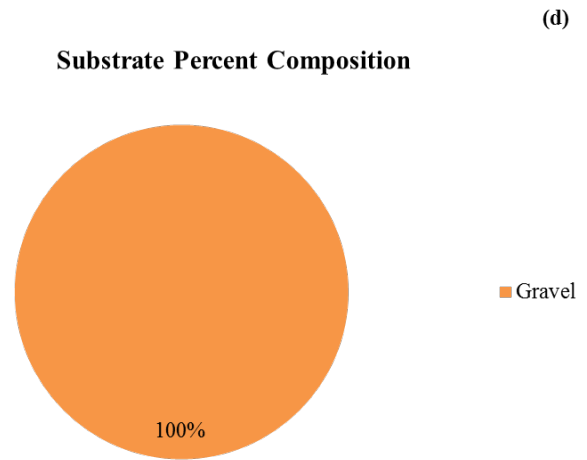


Transect 1. -- Fish and crab counts (a); structure-forming invertebrate counts (b); fish, crab, and structure-forming invertebrate densities (c); and substrate percent composition (d) for Transect 1 at 49 Fathom Pinnacle.

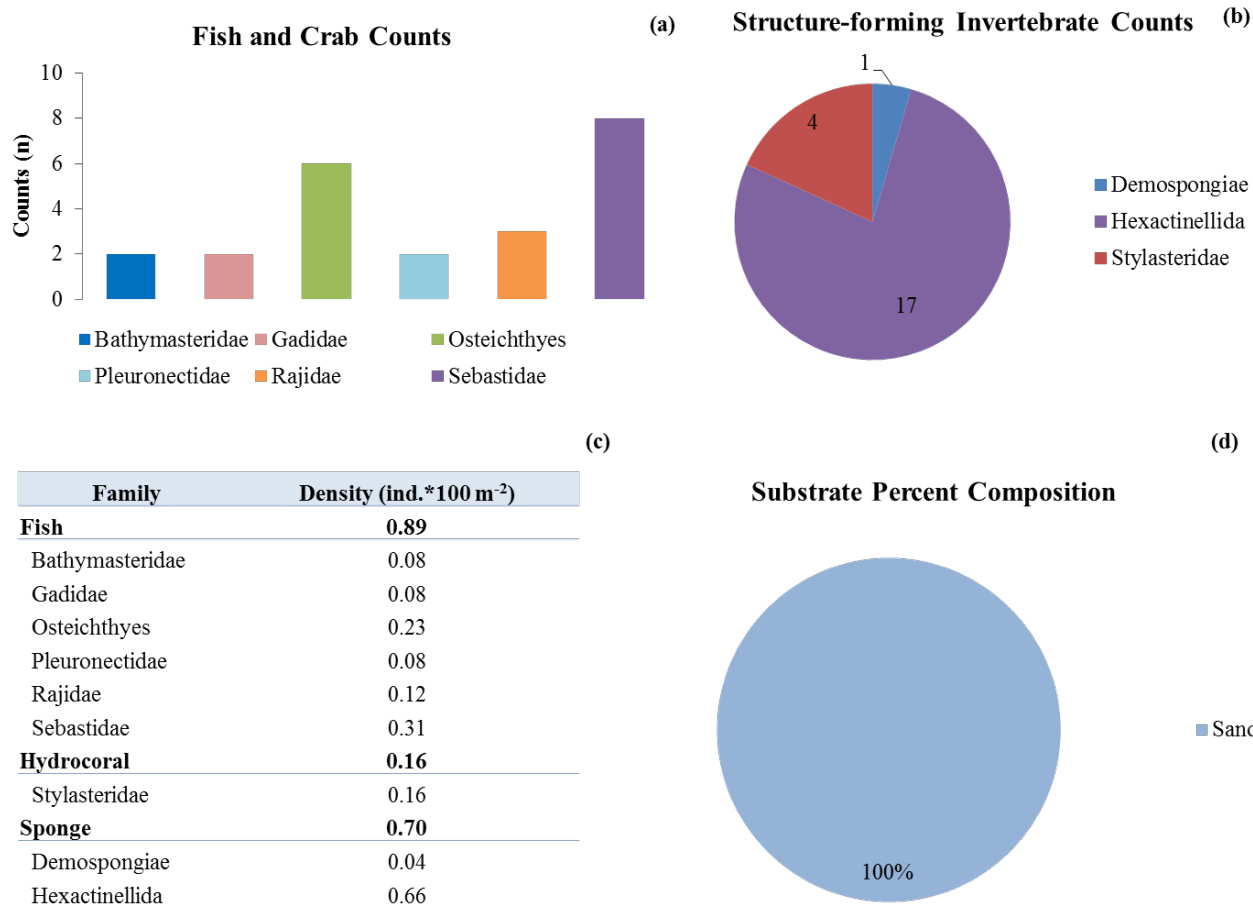


(c)

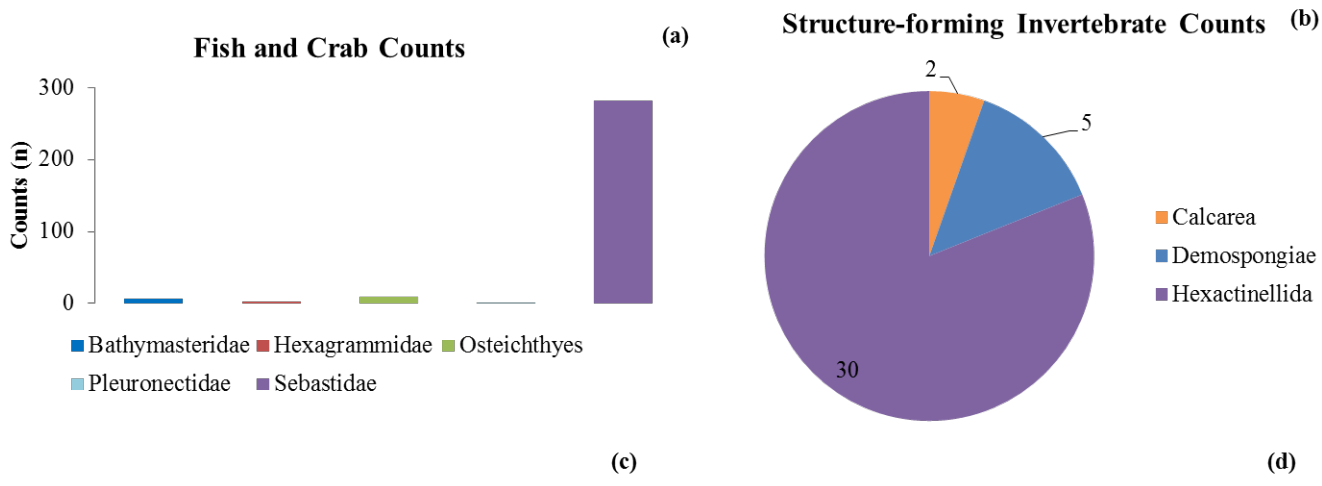
Family	Density (ind.*100 m <sup>-2</sup> )
<b>Fish</b>	<b>12.86</b>
Bathymasteridae	0.82
Osteichthyes	1.30
Sebastidae	10.71
Zaproridae	0.04
<b>Hydrocoral</b>	<b>69.56</b>
Stylasteridae	69.56
<b>Soft Coral</b>	<b>6.13</b>
Primnoidae	6.13
<b>Sponge</b>	<b>7.10</b>
Demospongiae	0.78
Hexactinellida	6.32



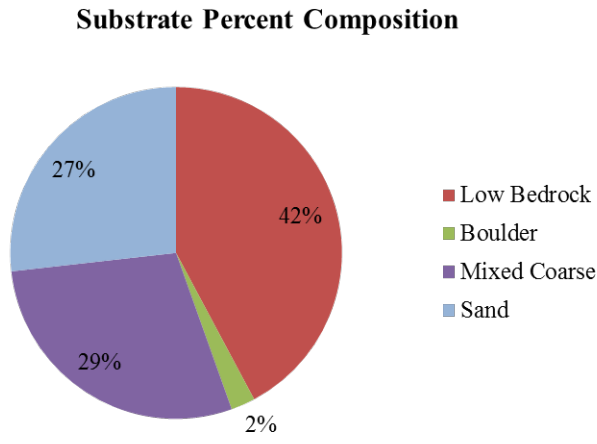
Transect 2. -- Fish and crab counts (a); structure-forming invertebrate counts (b); fish, crab, and structure-forming invertebrate densities (c); and substrate percent composition (d) for Transect 2 at 49 Fathom Pinnacle.



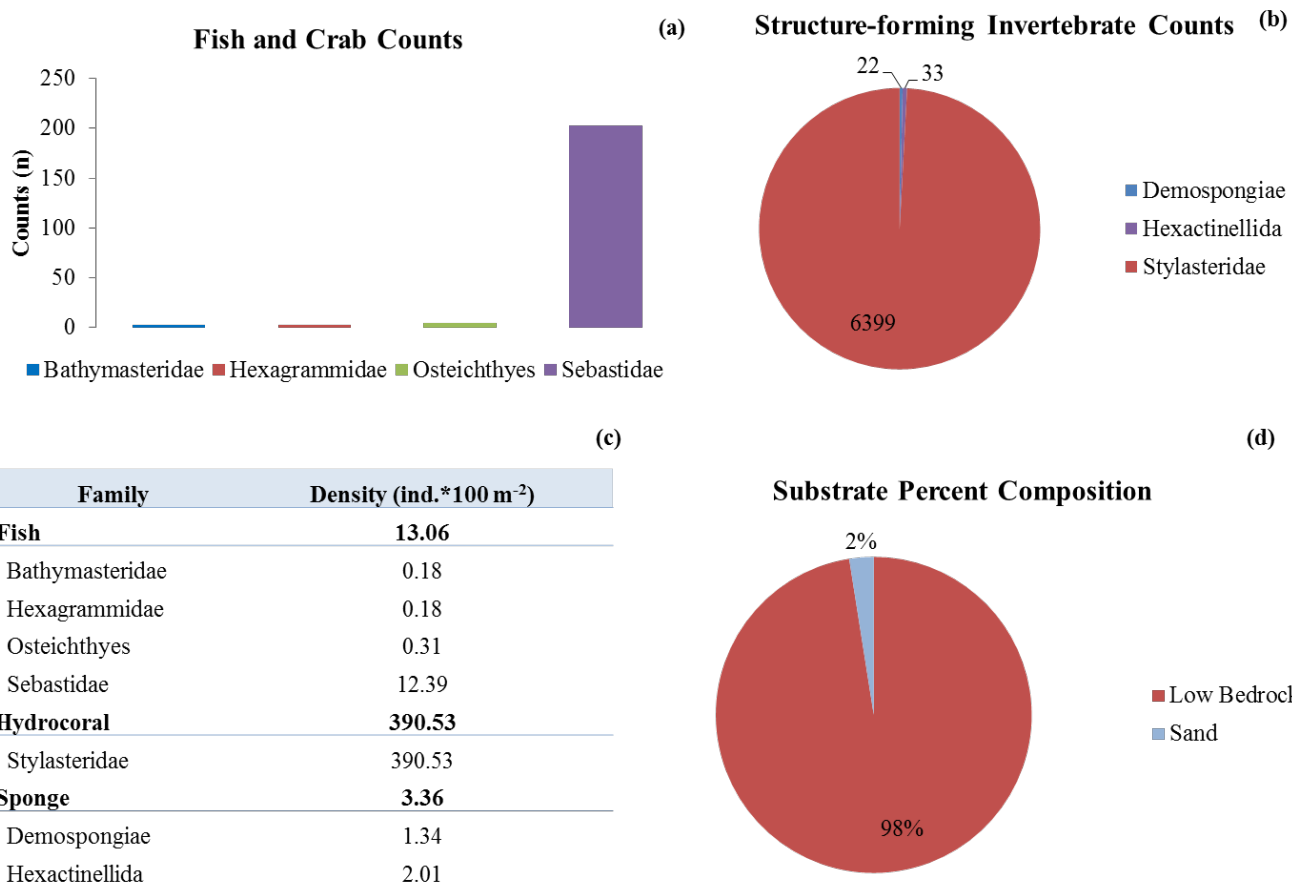
Transect 3. -- Fish and crab counts (a); structure-forming invertebrate counts (b); fish, crab, and structure-forming invertebrate densities (c); and substrate percent composition (d) for Transect 3 at 49 Fathom Pinnacle.



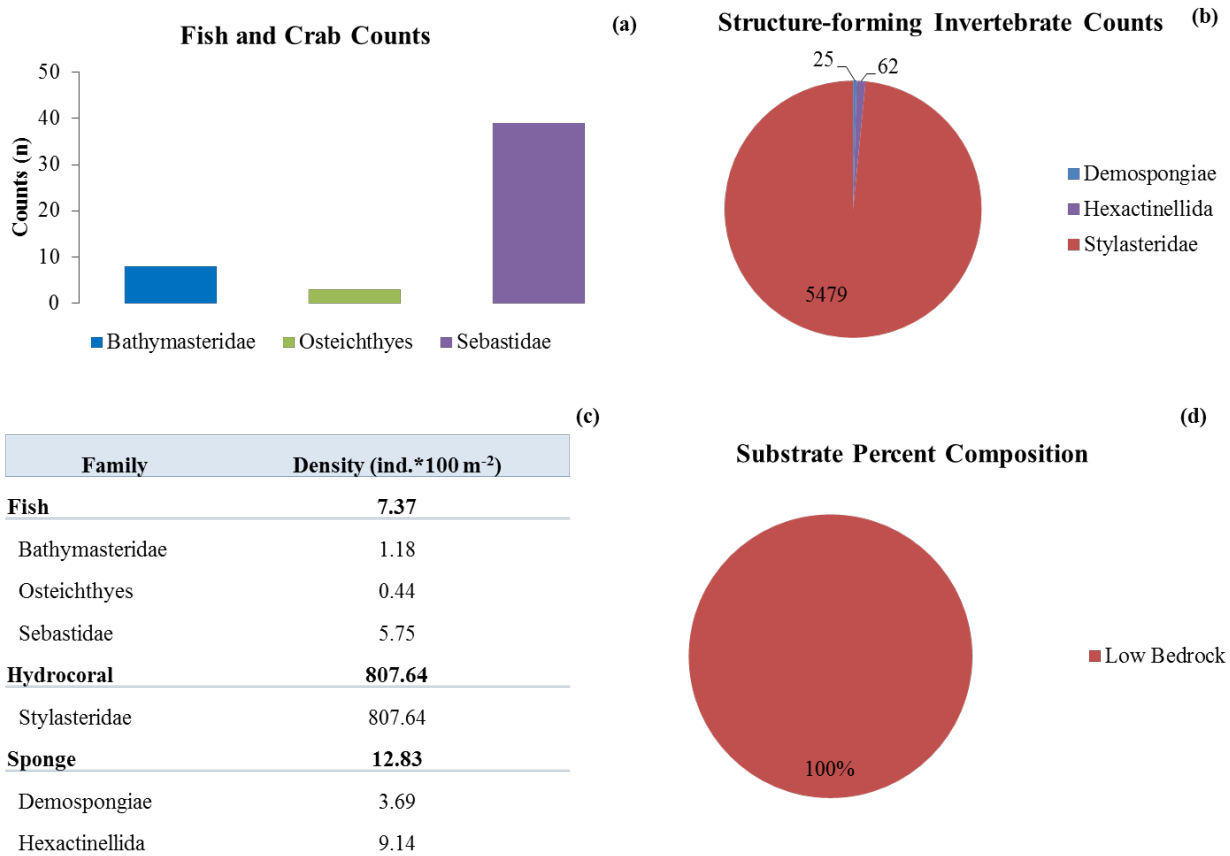
Family	Density (ind.*100 m <sup>-2</sup> )
<b>Fish</b>	<b>18.53</b>
Bathymasteridae	0.43
Hexagrammidae	0.18
Osteichthyes	0.61
Pleuronectidae	0.06
Sebastidae	17.24
<b>Hydrocoral</b>	<b>201.76</b>
Stylasteridae	201.76
<b>Sponge</b>	<b>2.26</b>
Calcare	0.12
Demospongiae	0.31
Hexactinellida	1.83



Transect 4. -- Fish and crab counts (a); structure-forming invertebrate counts (b); fish, crab, and structure-forming invertebrate densities (c); and substrate percent composition (d) for Transect 4 at 49 Fathom Pinnacle.

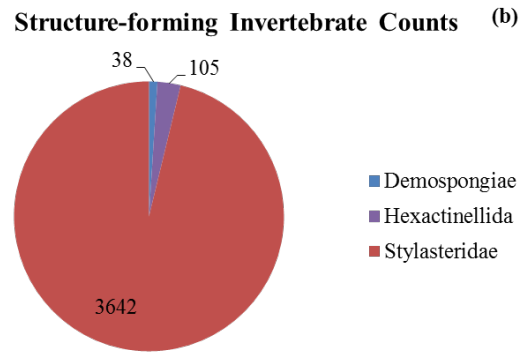
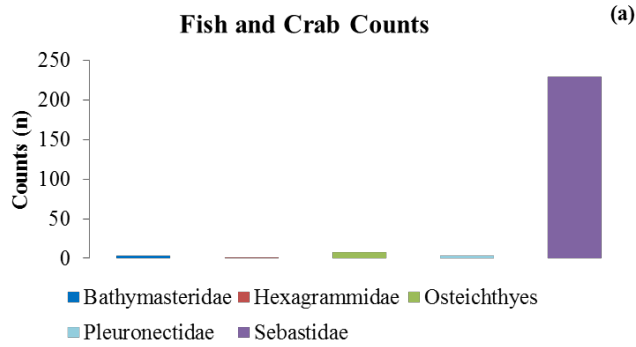


Transect 5. -- Fish and crab counts (a); structure-forming invertebrate counts (b); fish, crab, and structure-forming invertebrate densities (c); and substrate percent composition (d) for Transect 5 at 49 Fathom Pinnacle.



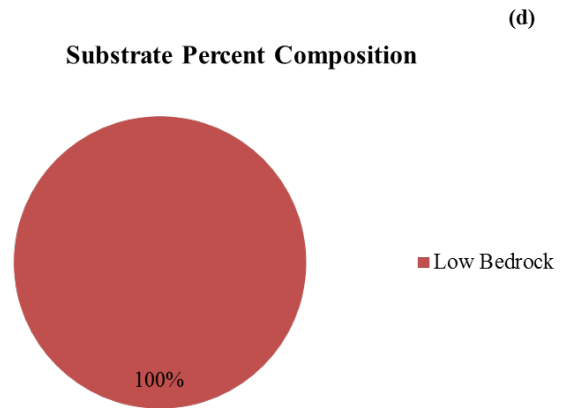
Transect 6. -- Fish and crab counts (a); structure-forming invertebrate counts (b); fish, crab, and structure-forming invertebrate densities (c); and substrate percent composition (d) for Transect 6 at 49 Fathom Pinnacle.



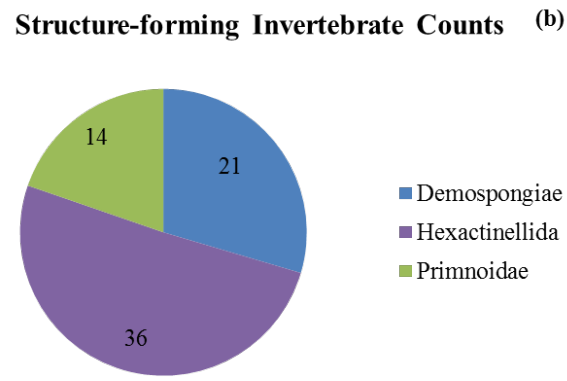
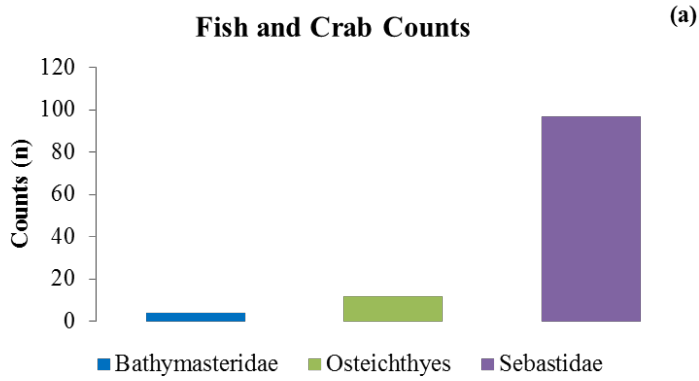


(c)

Family	Density (ind.*100 m <sup>-2</sup> )
<b>Fish</b>	<b>20.06</b>
Bathymasteridae	0.25
Hexagrammidae	0.08
Osteichthyes	0.66
Pleuronectidae	0.25
Sebastidae	18.83
<b>Hydrocoral</b>	<b>299.48</b>
Stylasteridae	299.48
<b>Sponge</b>	<b>11.76</b>
Demospongiae	3.12
Hexactinellida	8.63

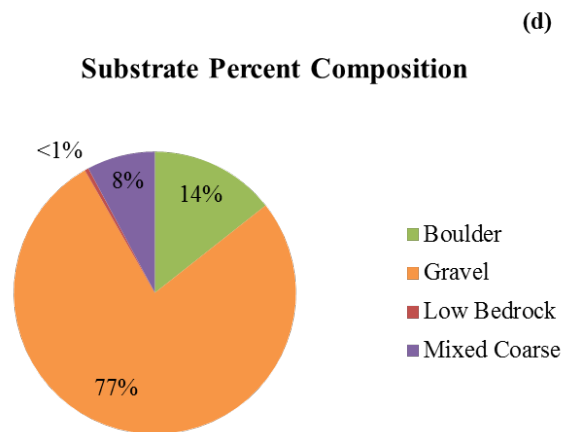


Transect 7. -- Fish and crab counts (a); structure-forming invertebrate counts (b); fish, crab, and structure-forming invertebrate densities (c); and substrate percent composition (d) for Transect 7 at 49 Fathom Pinnacle.

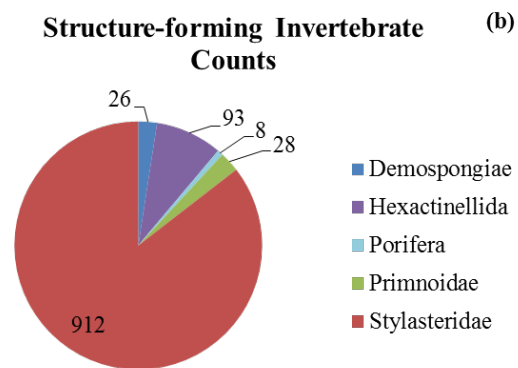
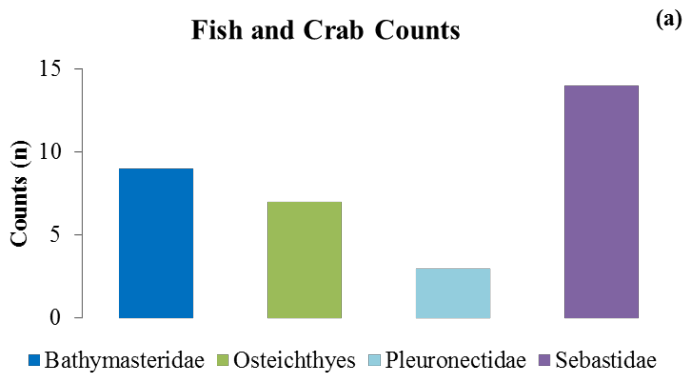


(c)

Family	Density (ind.*100 m <sup>-2</sup> )
<b>Fish</b>	<b>8.87</b>
Bathymasteridae	0.31
Osteichthyes	0.94
Sebastidae	7.61
<b>Hydrocoral</b>	<b>43.47</b>
Stylasteridae	43.47
<b>Soft Coral</b>	<b>1.10</b>
Primnoidae	1.10
<b>Sponge</b>	<b>4.47</b>
Demospongiae	1.65
Hexactinellida	2.82

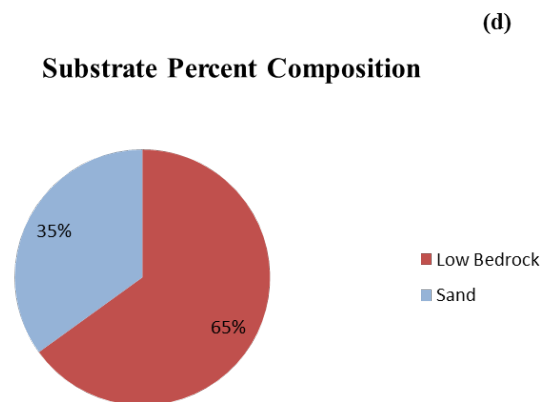


Transect 8. -- Fish and crab counts (a); structure-forming invertebrate counts (b); fish, crab, and structure-forming invertebrate densities (c); and substrate percent composition (d) for Transect 8 at 49 Fathom Pinnacle.

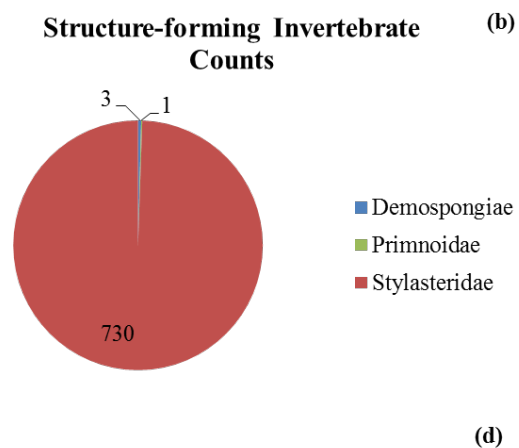
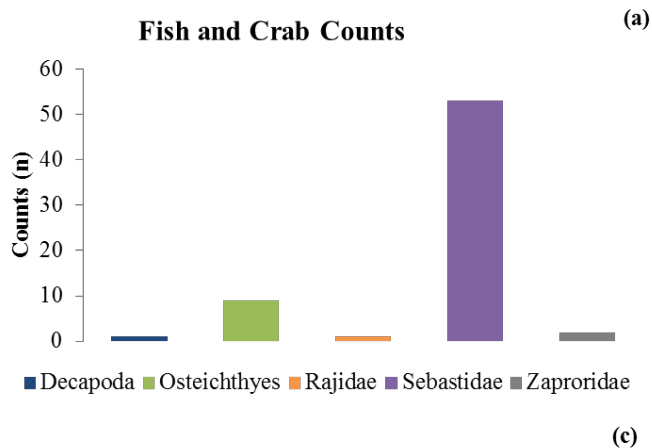


(c)

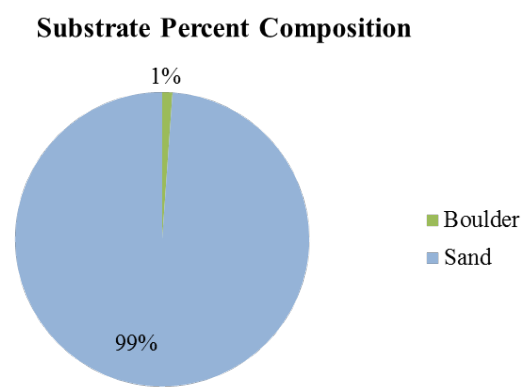
Family	Density (ind.*100 m <sup>-2</sup> )
<b>Fish</b>	<b>2.49</b>
Bathymasteridae	0.68
Osteichthyes	0.53
Pleuronectidae	0.23
Sebastidae	1.06
<b>Hydrocoral</b>	<b>68.89</b>
Stylasteridae	68.89
<b>Soft Coral</b>	<b>2.12</b>
Primnoidae	2.12
<b>Sponge</b>	<b>9.59</b>
Demospongiae	1.96
Hexactinellida	7.03
Porifera	0.60



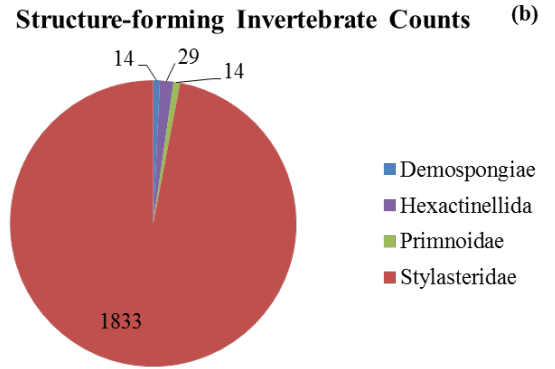
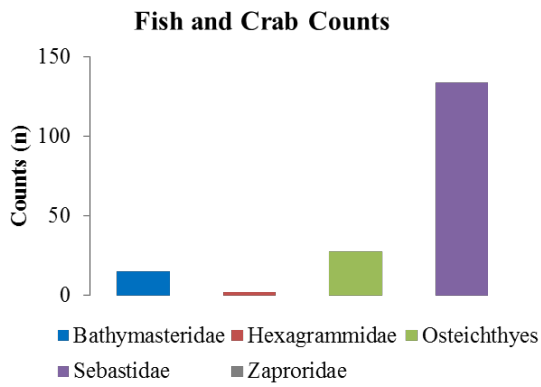
Transect 9. -- Fish and crab counts (a); structure-forming invertebrate counts (b); fish, crab, and structure-forming invertebrate densities (c); and substrate percent composition (d) for Transect 9 at 49 Fathom Pinnacle.



Family	Density (ind.*100 m <sup>-2</sup> )
<b>Decapod</b>	<b>0.07</b>
Decapoda	0.07
<b>Fish</b>	<b>4.75</b>
Osteichthyes	0.66
Rajidae	0.07
Sebastidae	3.87
Zaproridae	0.15
<b>Hydrocoral</b>	<b>53.29</b>
Stylasteridae	53.29
<b>Soft Coral</b>	<b>0.07</b>
Primnoidae	0.07
<b>Sponge</b>	<b>0.22</b>
Demospongiae	0.22

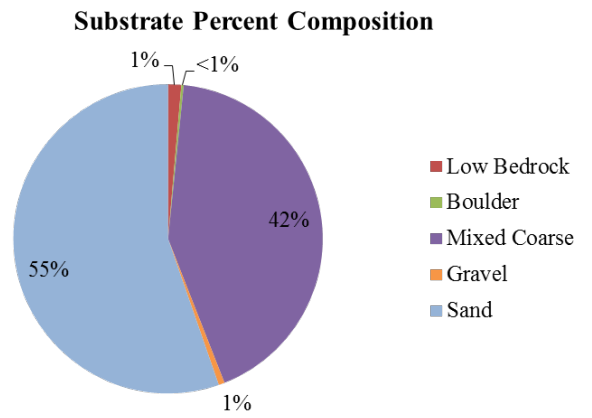


Transect 10. -- Fish and crab counts (a); structure-forming invertebrate counts (b); fish, crab, and structure-forming invertebrate densities (c); and substrate percent composition (d) for Transect 10 at 49 Fathom Pinnacle.

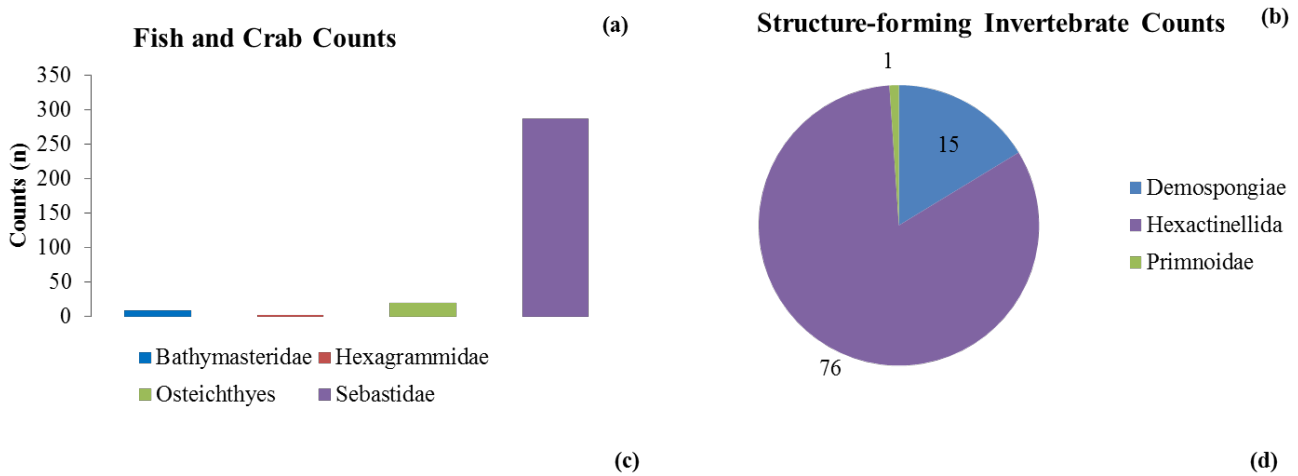


(c)

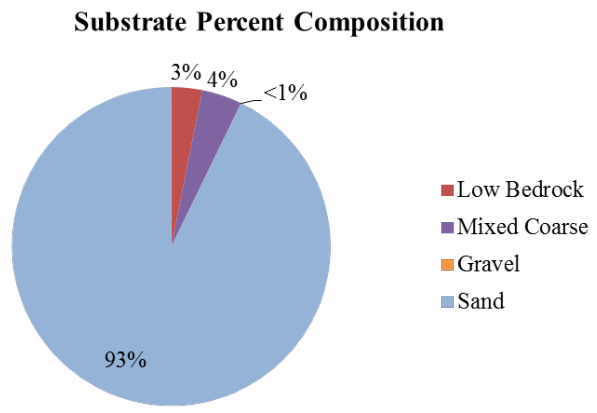
Family	Density (ind.*100 m <sup>-2</sup> )
<b>Fish</b>	<b>5.76</b>
Bathymasteridae	0.47
Hexagrammidae	0.06
Osteichthyes	0.88
Sebastidae	4.19
Zaproridae	0.16
<b>Hydrocoral</b>	<b>57.33</b>
Stylasteridae	57.33
<b>Soft Coral</b>	<b>0.44</b>
Primnoidae	0.44
<b>Sponge</b>	<b>1.35</b>
Demospongiae	0.44
Hexactinellida	0.91



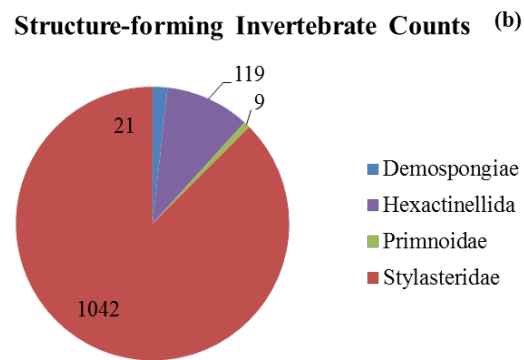
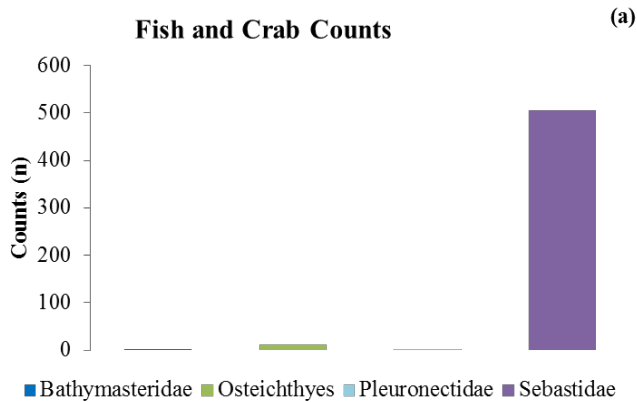
Transect 11. -- Fish and crab counts (a); structure-forming invertebrate counts (b); fish, crab, and structure-forming invertebrate densities (c); and substrate percent composition (d) for Transect 11 at 49 Fathom Pinnacle.



Family	Sum of Density (ind.*100 m-2)
<b>Fish</b>	<b>9.51</b>
Bathymasteridae	0.27
Hexagrammidae	0.06
Osteichthyes	0.60
Sebastidae	8.58
<b>Hydrocoral</b>	<b>39.45</b>
Stylasteridae	39.45
<b>Soft Coral</b>	<b>0.03</b>
Primnoidae	0.03
<b>Sponge</b>	<b>2.72</b>
Demospongiae	0.45
Hexactinellida	2.27

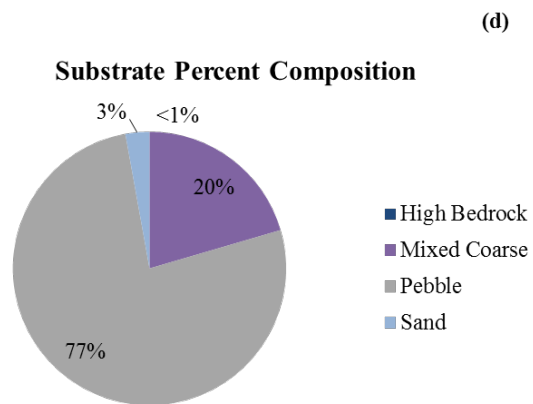


Transect 12. -- Fish and crab counts (a); structure-forming invertebrate counts (b); fish, crab, and structure-forming invertebrate densities (c); and substrate percent composition (d) for Transect 12 at 49 Fathom Pinnacle.

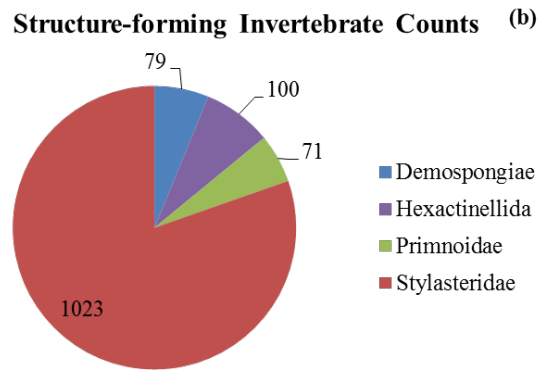
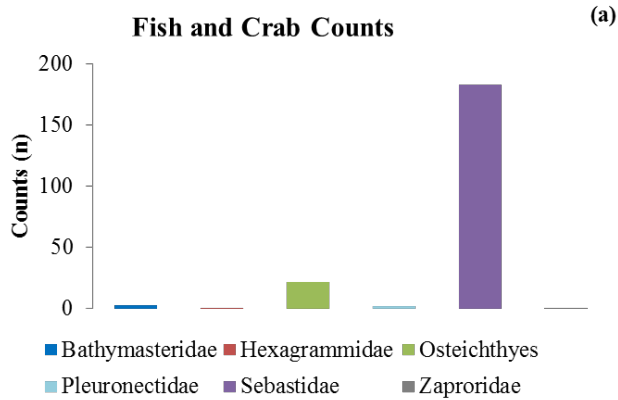


(c)

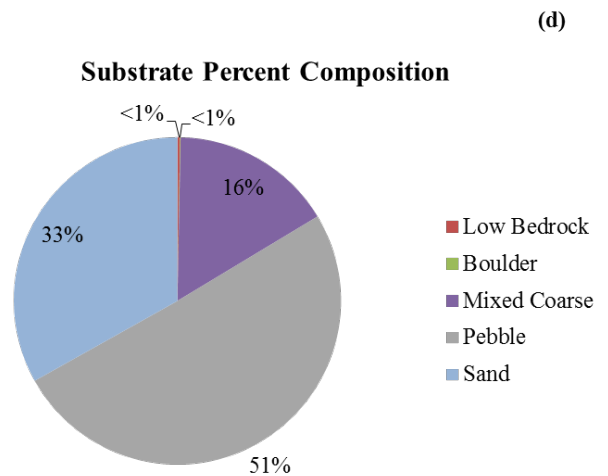
Family	Density (ind.*100 m <sup>-2</sup> )
<b>Fish</b>	<b>17.33</b>
Bathymasteridae	0.07
Osteichthyes	0.40
Pleuronectidae	0.03
Sebastidae	16.83
<b>Hydrocoral</b>	<b>34.67</b>
Stylasteridae	34.67
<b>Soft Coral</b>	<b>0.30</b>
Primnoidae	0.30
<b>Sponge</b>	<b>4.66</b>
Demospongiae	0.70
Hexactinellida	3.96



Transect 13. -- Fish and crab counts (a); structure-forming invertebrate counts (b); fish, crab, and structure-forming invertebrate densities (c); and substrate percent composition (d) for Transect 13 at 49 Fathom Pinnacle.

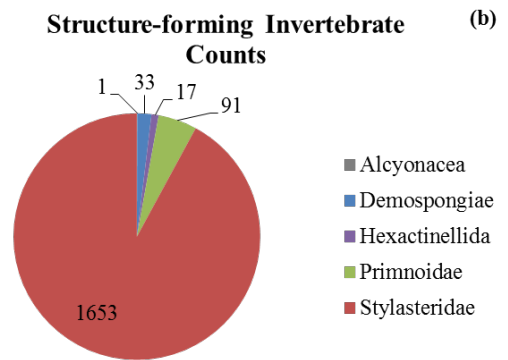
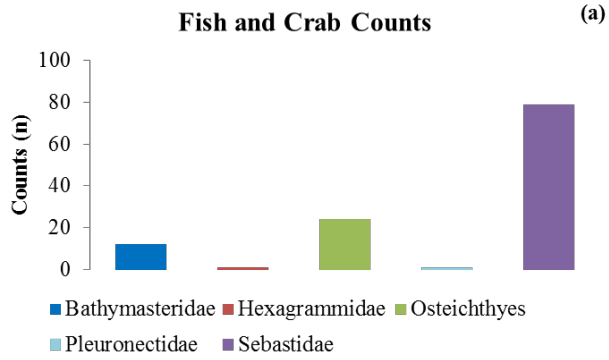


Family	Density (ind.*100 m <sup>-2</sup> )
<b>Fish</b>	<b>6.43</b>
Bathymasteridae	0.09
Hexagrammidae	0.03
Osteichthyes	0.67
Pleuronectidae	0.06
Sebastidae	5.55
Zaproridae	0.03
<b>Hydrocoral</b>	<b>31.06</b>
Styasteridae	31.06
<b>Soft Coral</b>	<b>2.15</b>
Primnoidae	2.15
<b>Sponge</b>	<b>5.43</b>
Demospongiae	2.40
Hexactinellida	3.04



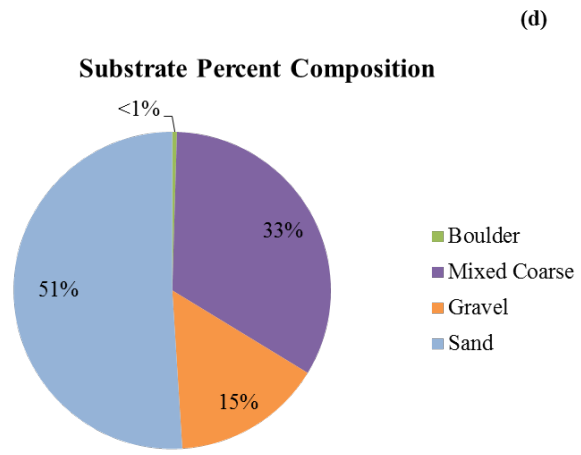
Transect 14. -- Fish and crab counts (a); structure-forming invertebrate counts (b); fish, crab, and structure-forming invertebrate densities (c); and substrate percent composition (d) for Transect 14 at 49 Fathom Pinnacle.



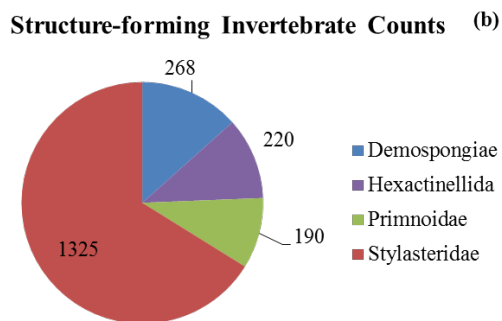
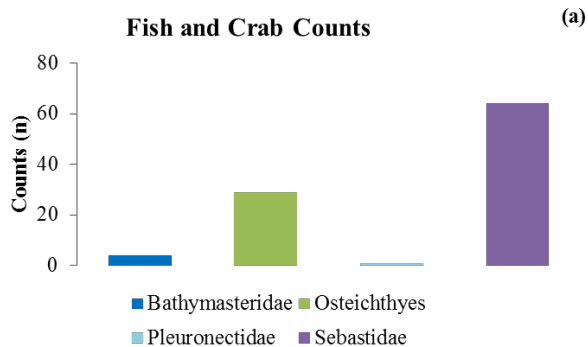


(c)

Family	Sum of Density (ind.*100 m-2)
<b>Fish</b>	<b>2.73</b>
Bathymasteridae	0.28
Hexagrammidae	0.02
Osteichthyes	0.56
Pleuronectidae	0.02
Sebastidae	1.84
<b>Hydrocoral</b>	<b>38.54</b>
Stylasteridae	38.54
<b>Soft Coral</b>	<b>2.15</b>
Alcyonacea	0.02
Primnoidae	2.12
<b>Sponge</b>	<b>1.17</b>
Demospongiae	0.77
Hexactinellida	0.40

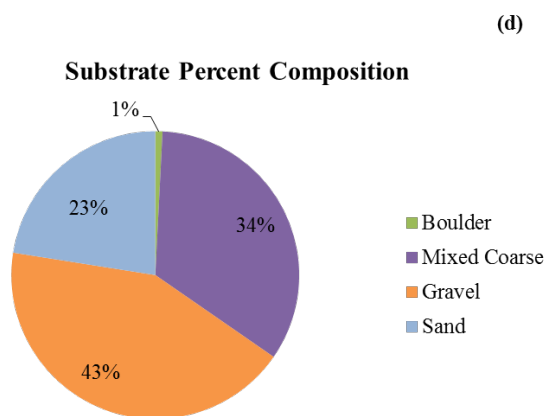


Transect 15. -- Fish and crab counts (a); structure-forming invertebrate counts (b); fish, crab, and structure-forming invertebrate densities (c); and substrate percent composition (d) for Transect 15 at 49 Fathom Pinnacle.

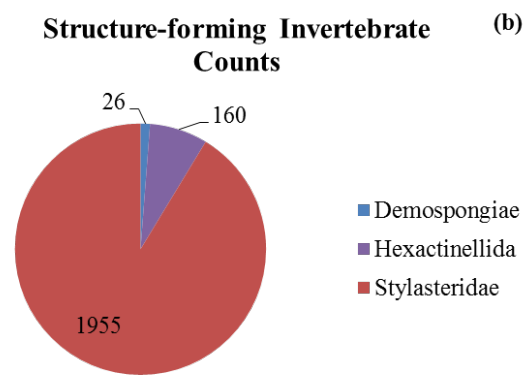
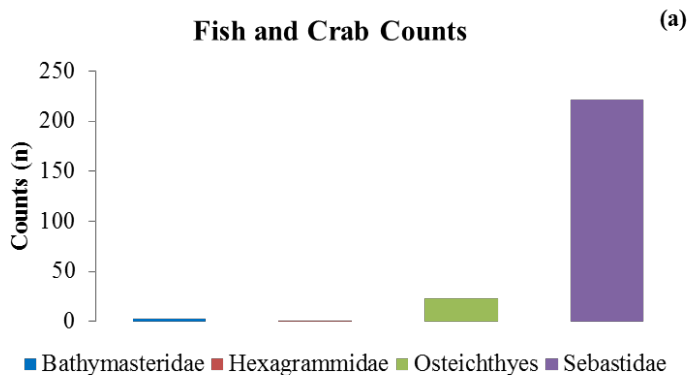


(c)

Family	Density (ind.*100 m <sup>-2</sup> )
<b>Fish</b>	<b>2.57</b>
Bathymasteridae	0.10
Osteichthyes	0.76
Pleuronectidae	0.03
Sebastidae	1.68
<b>Hydrocoral</b>	<b>34.70</b>
Stylasteridae	34.70
<b>Soft Coral</b>	<b>4.98</b>
Primnoidae	4.98
<b>Sponge</b>	<b>12.78</b>
Demospongiae	7.02
Hexactinellida	5.76

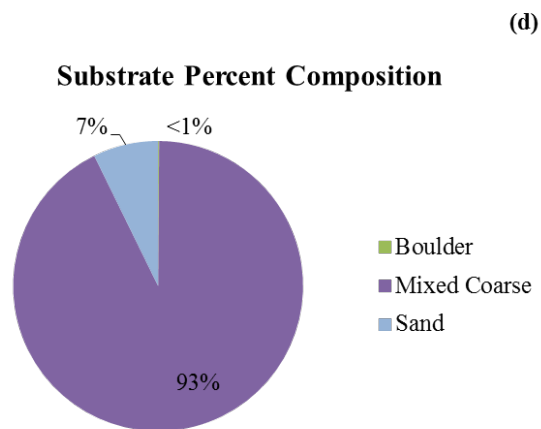


Transect 16. -- Fish and crab counts (a); structure-forming invertebrate counts (b); fish, crab, and structure-forming invertebrate densities (c); and substrate percent composition (d) for Transect 16 at 49 Fathom Pinnacle.

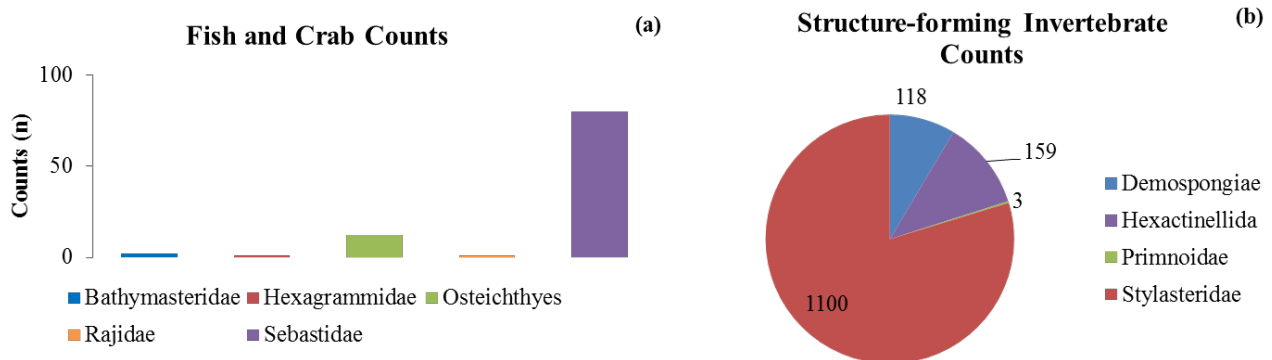


(c)

Family	Density (ind.*100 m <sup>-2</sup> )
<b>Fish</b>	<b>6.60</b>
Bathymasteridae	0.08
Hexagrammidae	0.03
Osteichthyes	0.61
Sebastidae	5.88
<b>Hydrocoral</b>	<b>52.00</b>
Stylasteridae	52.00
<b>Sponge</b>	<b>4.95</b>
Demospongiae	0.69
Hexactinellida	4.26

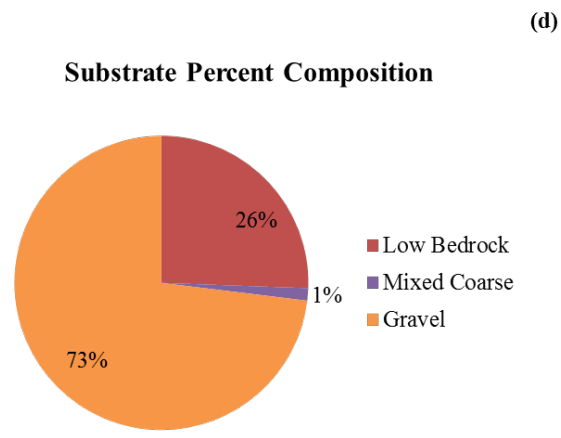


Transect 29. -- Fish and crab counts (a); structure-forming invertebrate counts (b); fish, crab, and structure-forming invertebrate densities (c); and substrate percent composition (d) for Transect 29 at 49 Fathom Pinnacle.

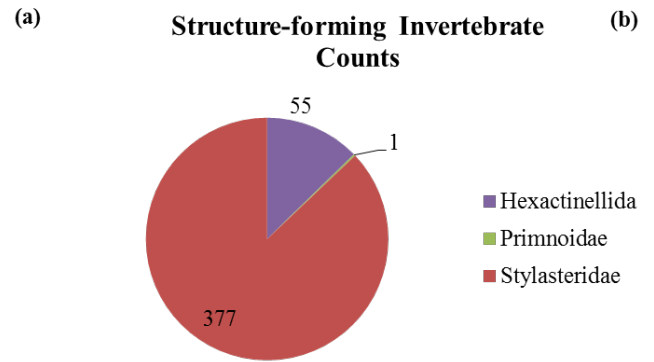
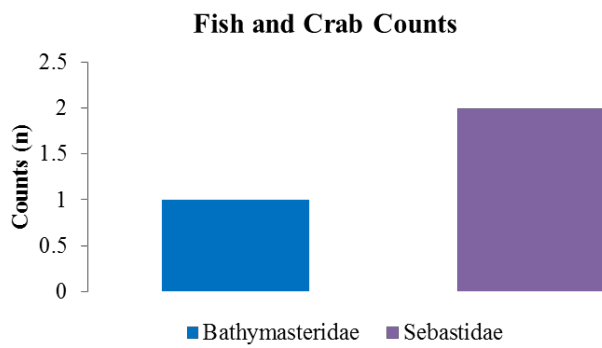


**(c)**

Family	Density (ind.*100 m <sup>-2</sup> )
<b>Fish</b>	<b>2.93</b>
Bathymasteridae	0.06
Hexagrammidae	0.03
Osteichthyes	0.37
Rajidae	0.03
Sebastidae	2.44
<b>Hydrocoral</b>	<b>33.59</b>
Stylasteridae	33.59
<b>Soft Coral</b>	<b>0.09</b>
Primnoidae	0.09
<b>Sponge</b>	<b>8.46</b>
Demospongiae	3.60
Hexactinellida	4.85



Transect 30. -- Fish and crab counts (a); structure-forming invertebrate counts (b); fish, crab, and structure-forming invertebrate densities (c); and substrate percent composition (d) for Transect 30 at 49 Fathom Pinnacle.



**Family**                      **Density (ind.\*100 m<sup>-2</sup>)**

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**Fish**                                      **0.69**

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Bathymasteridae                      0.23

Sebastidae                                0.46

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**Hydrocoral**                              **86.79**

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Stylasteridae                              86.79

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**Soft Coral**                                **0.23**

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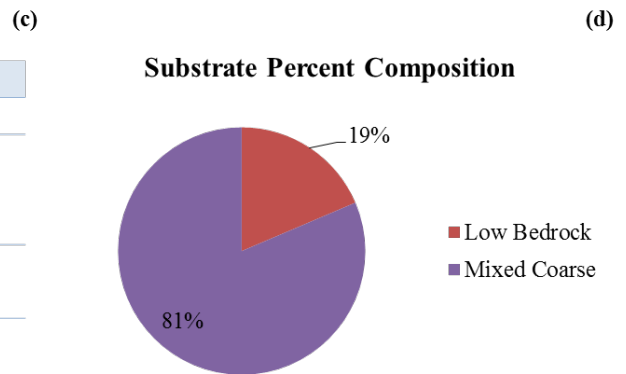
Primnoidae                                0.23

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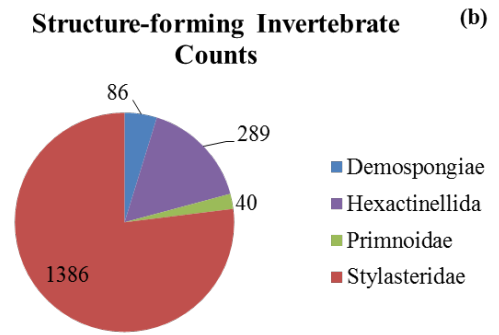
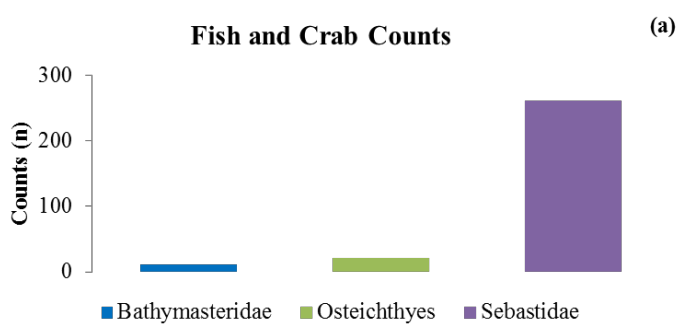
**Sponge**                                    **12.66**

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Hexactinellida                            12.66

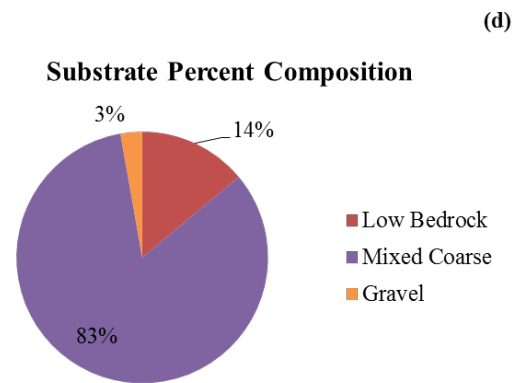


Transect 31. -- Fish and crab counts (a); structure-forming invertebrate counts (b); fish, crab, and structure-forming invertebrate densities (c); and substrate percent composition (d) for Transect 31 at 49 Fathom Pinnacle.

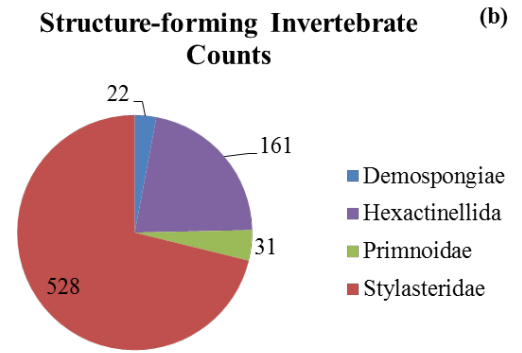
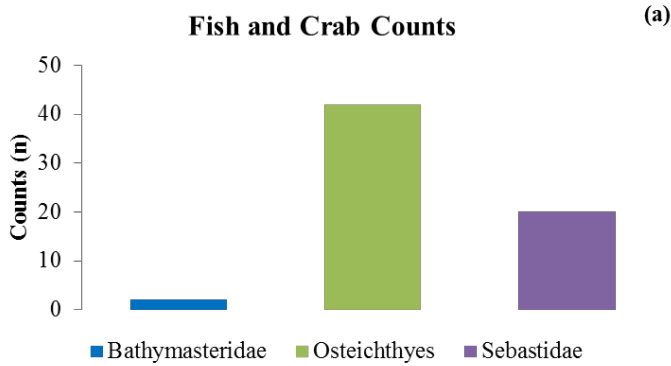


(c)

Family	Density (ind.*100 m <sup>-2</sup> )
<b>Fish</b>	<b>10.40</b>
Bathymasteridae	0.42
Osteichthyes	0.74
Sebastidae	9.23
<b>Hydrocoral</b>	<b>49.04</b>
Stylasteridae	49.04
<b>Soft Coral</b>	<b>1.41</b>
Primnoidae	1.41
<b>Sponge</b>	<b>13.26</b>
Demospongiae	3.04
Hexactinellida	10.22

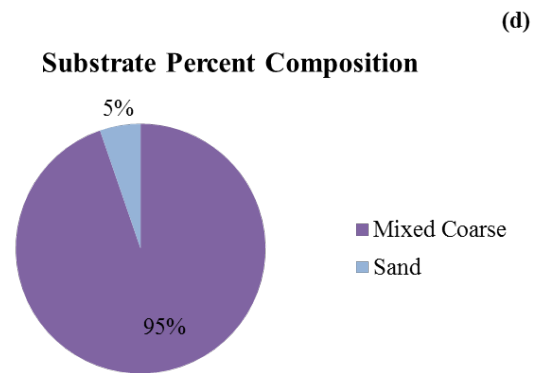


Transect 32. -- Fish and crab counts (a); structure-forming invertebrate counts (b); fish, crab, and structure-forming invertebrate densities (c); and substrate percent composition (d) for Transect 32 at 49 Fathom Pinnacle.

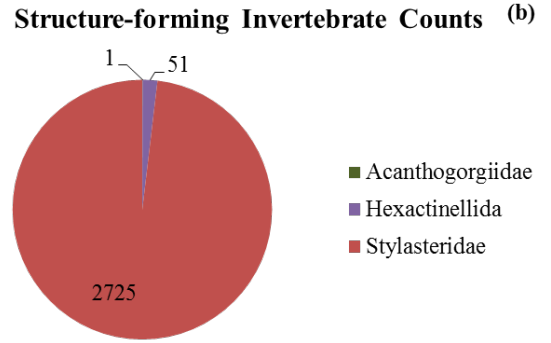
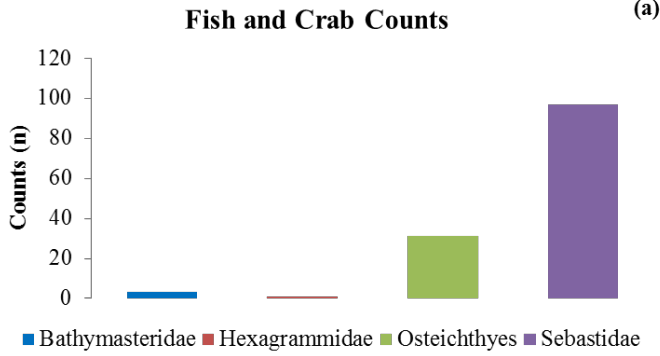


(c)

Family	Density (ind.*100 m <sup>-2</sup> )
<b>Fish</b>	<b>2.86</b>
Bathymasteridae	0.09
Osteichthyes	1.88
Sebastidae	0.90
<b>Hydrocoral</b>	<b>23.62</b>
Stylasteridae	23.62
<b>Soft Coral</b>	<b>1.39</b>
Primnoidae	1.39
<b>Sponge</b>	<b>8.19</b>
Demospongiae	0.98
Hexactinellida	7.21

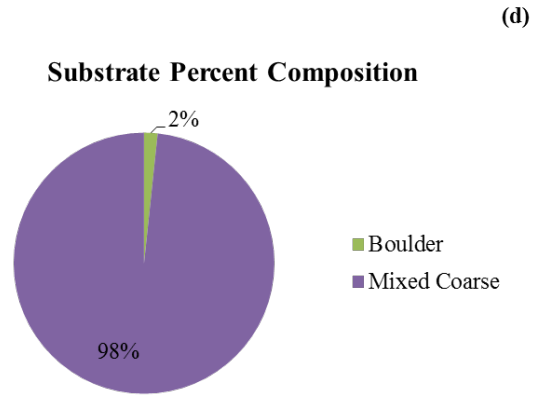


Transect 33. -- Fish and crab counts (a); structure-forming invertebrate counts (b); fish, crab, and structure-forming invertebrate densities (c); and substrate percent composition (d) for Transect 33 at 49 Fathom Pinnacle.



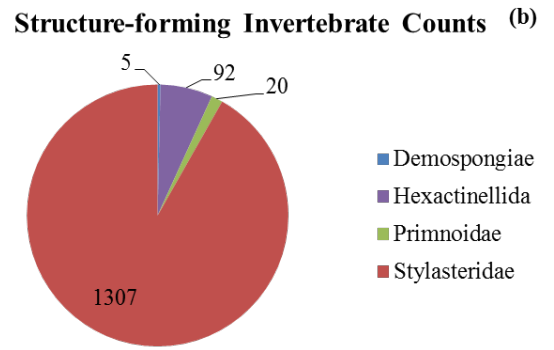
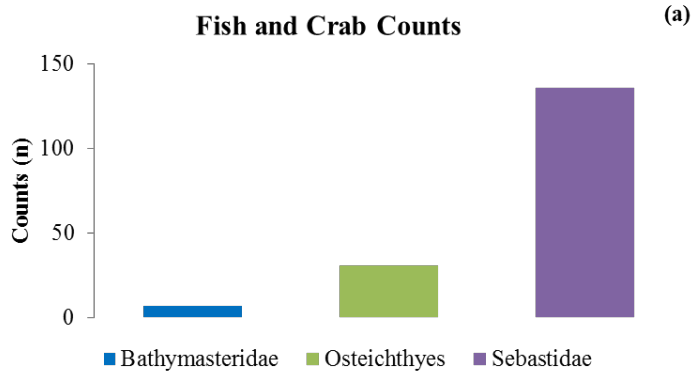
(c)

Family	Density (ind.*100 m <sup>-2</sup> )
<b>Fish</b>	<b>5.83</b>
Bathymasteridae	0.13
Hexagrammidae	0.04
Osteichthyes	1.37
Sebastidae	4.28
<b>Hydrocoral</b>	<b>120.30</b>
Stylasteridae	120.30
<b>Soft Coral</b>	<b>0.04</b>
Acanthogorgiidae	0.04
<b>Sponge</b>	<b>2.25</b>
Hexactinellida	2.25



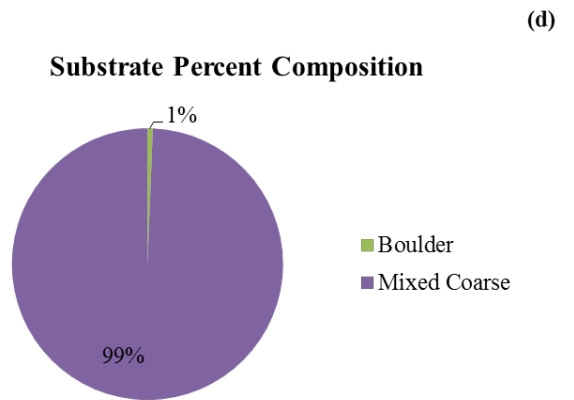
Transect 34. -- Fish and crab counts (a); structure-forming invertebrate counts (b); fish, crab, and structure-forming invertebrate densities (c); and substrate percent composition (d) for Transect 34 at 49 Fathom Pinnacle.



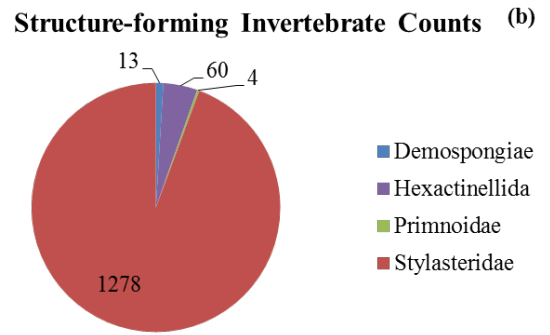
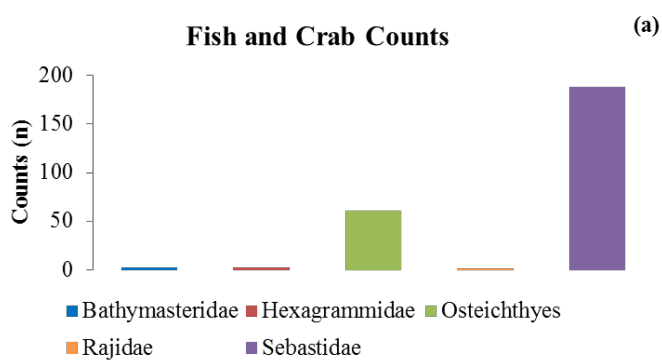


(c)

Family	Density (ind.*100 m <sup>-2</sup> )
<b>Fish</b>	<b>6.21</b>
Bathymasteridae	0.25
Osteichthyes	1.11
Sebastidae	4.85
<b>Hydrocoral</b>	<b>46.65</b>
Stylasteridae	46.65
<b>Soft Coral</b>	<b>0.71</b>
Primnoidae	0.71
<b>Sponge</b>	<b>3.46</b>
Demospongiae	0.18
Hexactinellida	3.28



Transect 35. -- Fish and crab counts (a); structure-forming invertebrate counts (b); fish, crab, and structure-forming invertebrate densities (c); and substrate percent composition (d) for Transect 35 at 49 Fathom Pinnacle.

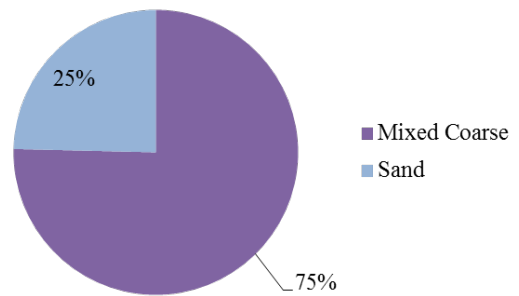


(c)

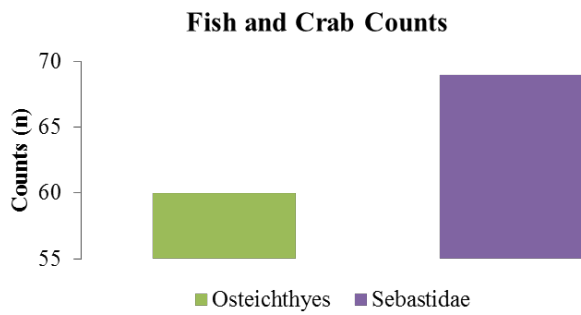
(d)

Family	Density (ind.*100 m <sup>-2</sup> )
<b>Fish</b>	<b>8.69</b>
Bathymasteridae	0.07
Hexagrammidae	0.07
Osteichthyes	2.09
Rajidae	0.03
Sebastidae	6.43
<b>Hydrocoral</b>	<b>43.72</b>
Stylasteridae	43.72
<b>Soft Coral</b>	<b>0.14</b>
Primnoidae	0.14
<b>Sponge</b>	<b>2.50</b>
Demospongiae	0.44
Hexactinellida	2.05

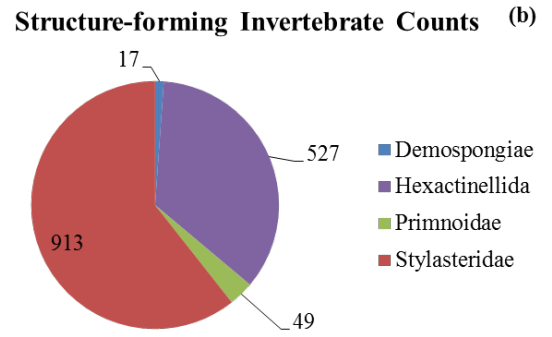
**Substrate Percent Composition**



Transect 36. -- Fish and crab counts (a); structure-forming invertebrate counts (b); fish, crab, and structure-forming invertebrate densities (c); and substrate percent composition (d) for Transect 36 at 49 Fathom Pinnacle.



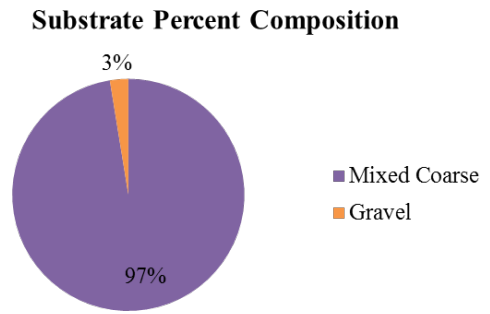
(a)



(b)

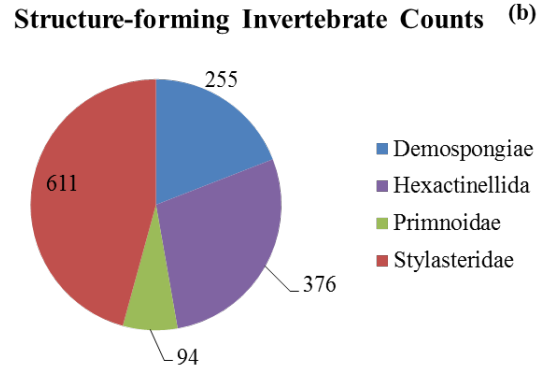
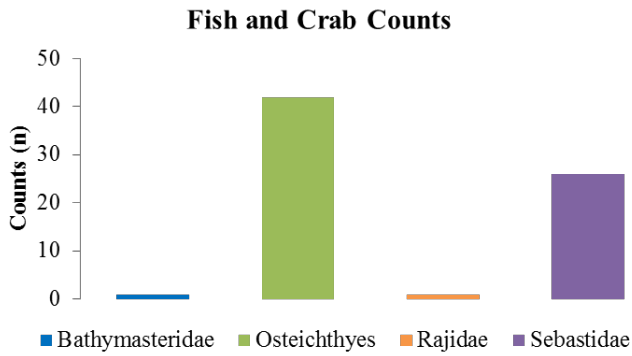
Family	Density (ind.*100 m <sup>-2</sup> )
<b>Fish</b>	<b>3.98</b>
Osteichthyes	1.85
Sebastidae	2.13
<b>Hydrocoral</b>	<b>28.14</b>
Stylasteridae	28.14
<b>Soft Coral</b>	<b>1.51</b>
Primmnoidae	1.51
<b>Sponge</b>	<b>16.77</b>
Demospongiae	0.52
Hexactinellida	16.25

(c)



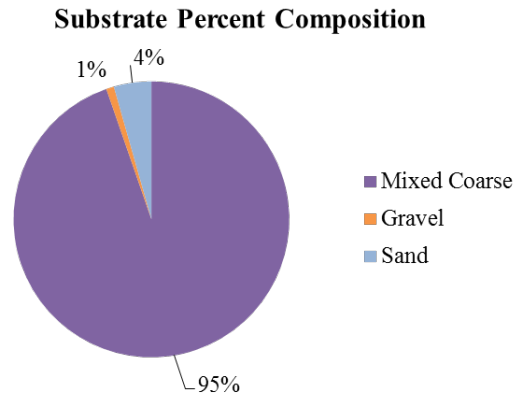
(d)

Transect 37. -- Fish and crab counts (a); structure-forming invertebrate counts (b); fish, crab, and structure-forming invertebrate densities (c); and substrate percent composition (d) for Transect 37 at 49 Fathom Pinnacle.

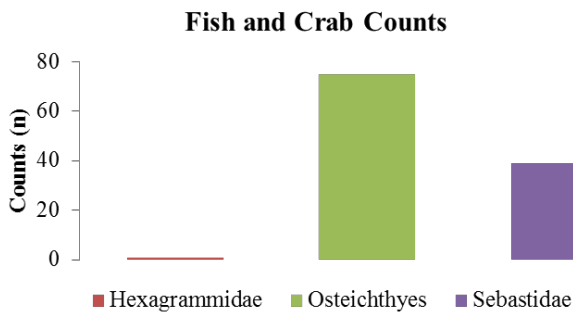


(c)

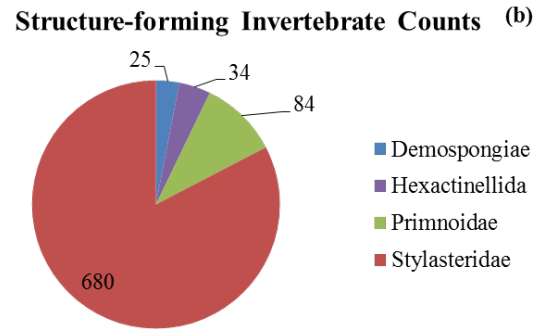
Family	Density (ind.*100 m <sup>-2</sup> )
<b>Fish</b>	<b>2.11</b>
Bathymasteridae	0.03
Osteichthyes	1.26
Rajidae	0.03
Sebastidae	0.78
<b>Hydrocoral</b>	<b>18.39</b>
Stylasteridae	18.39
<b>Soft Coral</b>	<b>2.83</b>
Primnoidae	2.83
<b>Sponge</b>	<b>19.00</b>
Demospongiae	7.68
Hexactinellida	11.32



Transect 38. -- Fish and crab counts (a); structure-forming invertebrate counts (b); fish, crab, and structure-forming invertebrate densities (c); and substrate percent composition (d) for Transect 38 at 49 Fathom Pinnacle.



(a)

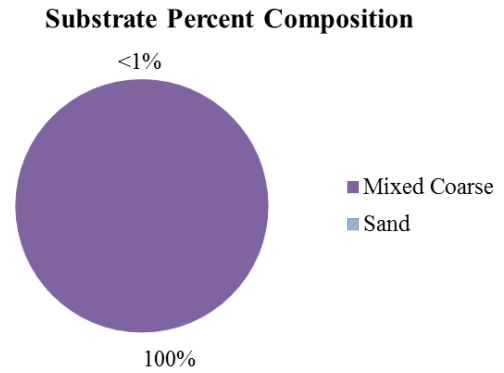


(b)

(c)

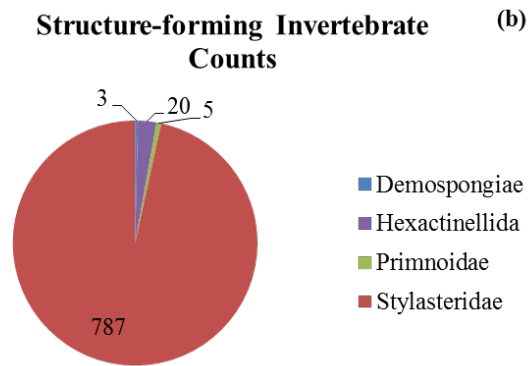
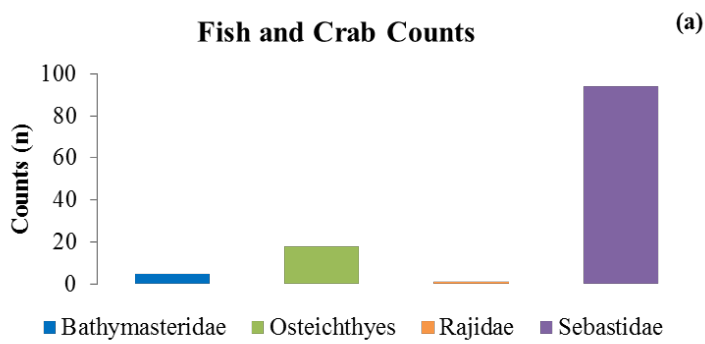
Family	Density (ind.*100 m <sup>-2</sup> )
<b>Fish</b>	<b>4.28</b>
Hexagrammidae	0.04
Osteichthyes	2.79
Sebastidae	1.45
<b>Hydrocoral</b>	<b>25.30</b>
Stylasteridae	25.30
<b>Soft Coral</b>	<b>3.12</b>
Primnoidae	3.12
<b>Sponge</b>	<b>2.19</b>
Demospongiae	0.93
Hexactinellida	1.26

(c)



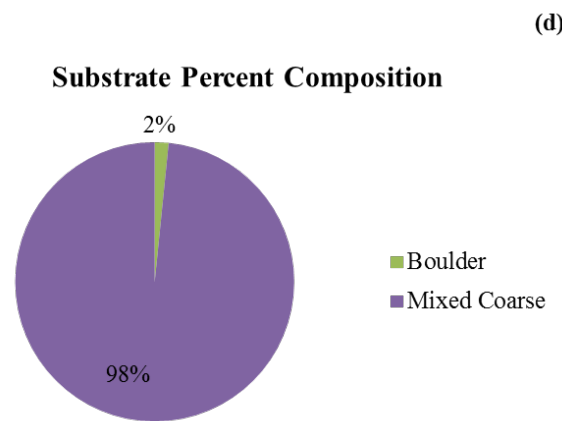
(d)

Transect 39. -- Fish and crab counts (a); structure-forming invertebrate counts (b); fish, crab, and structure-forming invertebrate densities (c); and substrate percent composition (d) for Transect 39 at 49 Fathom Pinnacle.



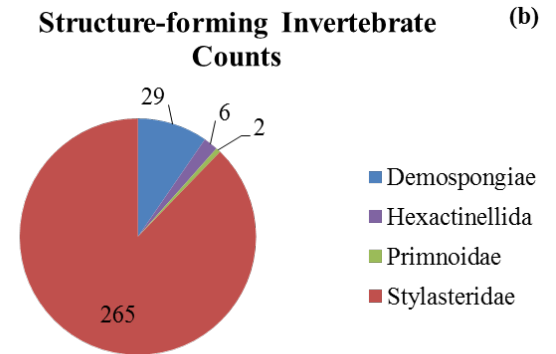
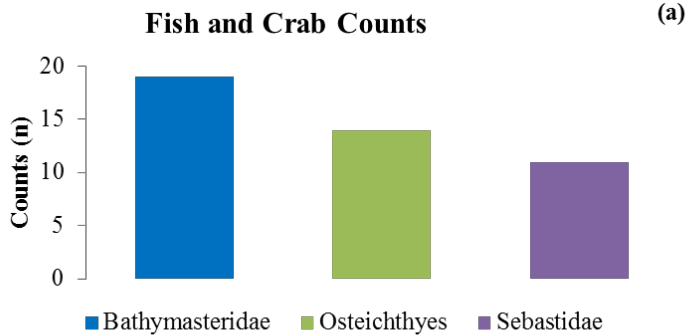
(c)

Family	Density (ind.*100 m <sup>-2</sup> )
<b>Fish</b>	<b>5.21</b>
Bathymasteridae	0.22
Osteichthyes	0.80
Rajidae	0.04
Sebastidae	4.15
<b>Hydrocoral</b>	<b>34.78</b>
Stylasteridae	34.78
<b>Soft Coral</b>	<b>0.22</b>
Primnoidae	0.22
<b>Sponge</b>	<b>1.02</b>
Demospongiae	0.13
Hexactinellida	0.88



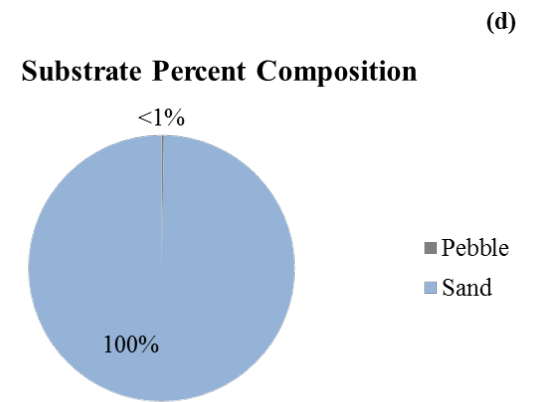
Transect 40. -- Fish and crab counts (a); structure-forming invertebrate counts (b); fish, crab, and structure-forming invertebrate densities (c); and substrate percent composition (d) for Transect 40 at 49 Fathom Pinnacle.

## TRANSECT SUMMARIES: Snakehead Bank

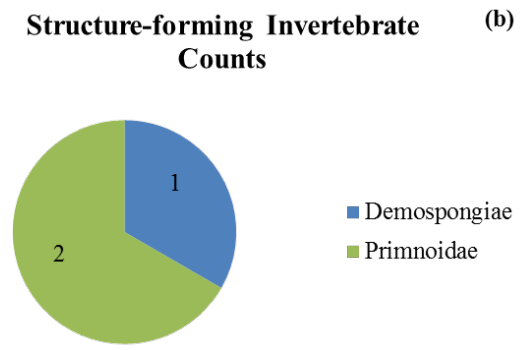
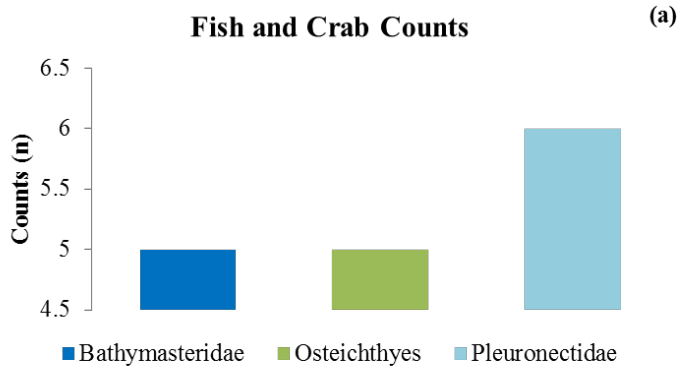


(c)

Family	Density (ind.*100 m <sup>-2</sup> )
<b>Fish</b>	<b>1.87</b>
Bathymasteridae	0.81
Osteichthyes	0.60
Sebastidae	0.47
<b>Hydrocoral</b>	<b>11.29</b>
Stylasteridae	11.29
<b>Soft Coral</b>	<b>0.09</b>
Primnoidae	0.09
<b>Sponge</b>	<b>1.49</b>
Demospongiae	1.24
Hexactinellida	0.26

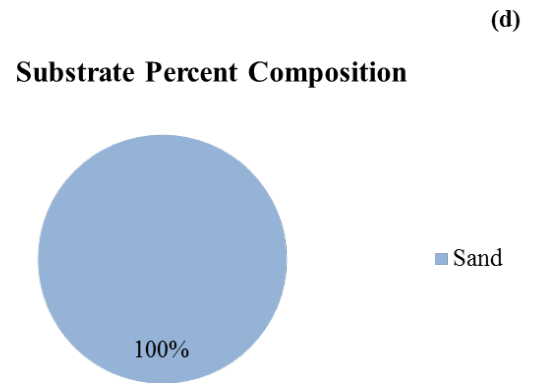


Transect 17. -- Fish and crab counts (a); structure-forming invertebrate counts (b); fish, crab, and structure-forming invertebrate densities (c); and substrate percent composition (d) for Transect 17 at Snakehead Bank.



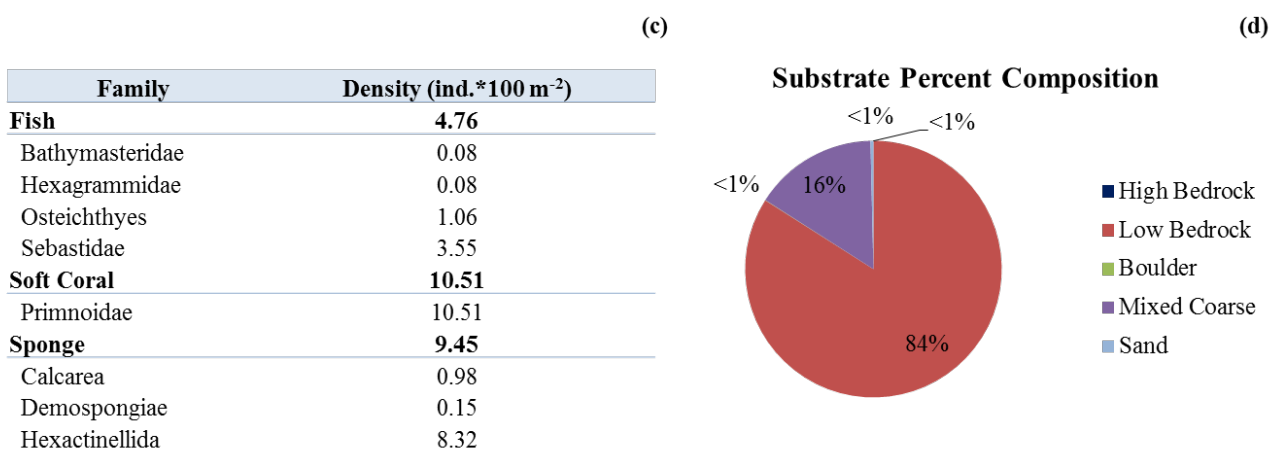
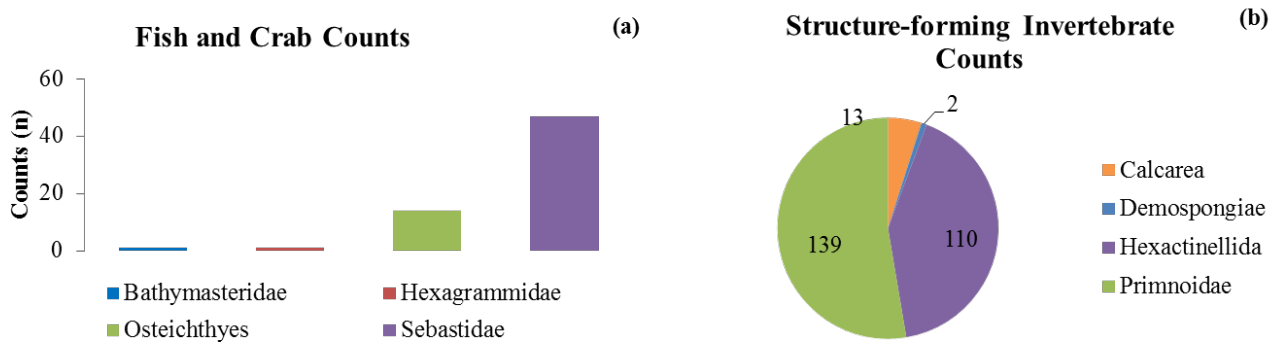
(c)

Family	Density (ind.*100 m <sup>-2</sup> )
<b>Fish</b>	<b>1.06</b>
Bathymasteridae	0.33
Osteichthyes	0.33
Pleuronectidae	0.40
<b>Soft Coral</b>	<b>0.13</b>
Primnoidae	0.13
<b>Sponge</b>	<b>0.07</b>
Demospongiae	0.07

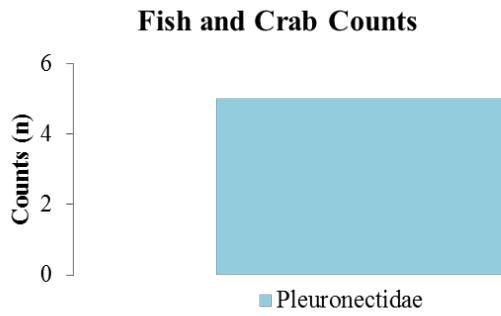


Transect 18. -- Fish and crab counts (a); structure-forming invertebrate counts (b); fish, crab, and structure-forming invertebrate densities (c); and substrate percent composition (d) for Transect 18 at Snakehead Bank.

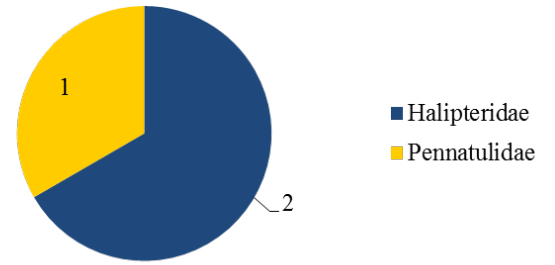




Transect 19. -- Fish and crab counts (a); structure-forming invertebrate counts (b); fish, crab, and structure-forming invertebrate densities (c); and substrate percent composition (d) for Transect 19 at Snakehead Bank.

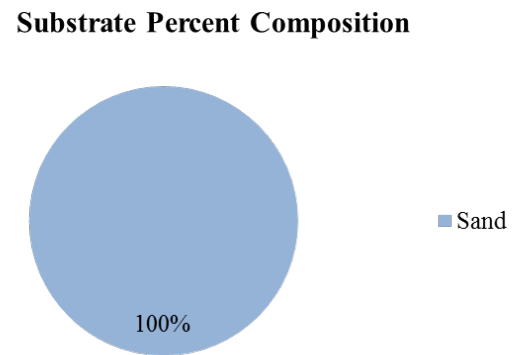


(a) **Structure-forming Invertebrate Counts** (b)

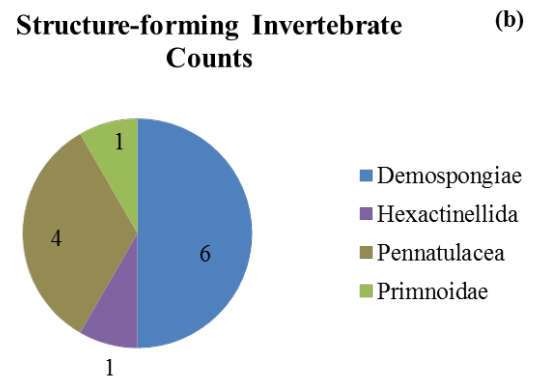
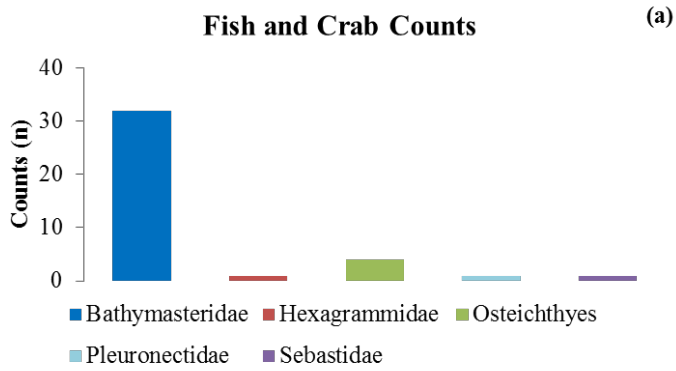


(c) **Substrate Percent Composition** (d)

Family	Density (ind.*100 m <sup>-2</sup> )
<b>Fish</b>	<b>0.38</b>
Pleuronectidae	0.38
<b>Pennatulacean</b>	<b>0.23</b>
Halipteridae	0.15
Pennatulidae	0.08

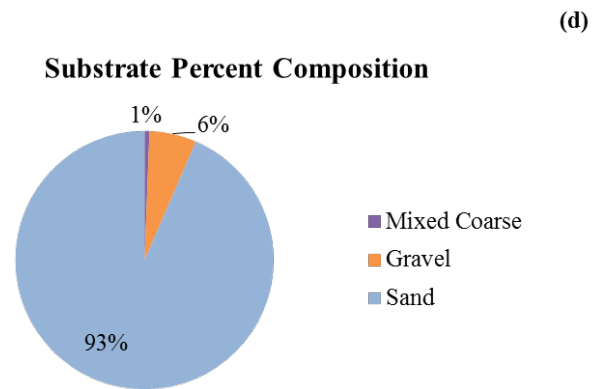


Transect 20. -- Fish and crab counts (a); structure-forming invertebrate counts (b); fish, crab, and structure-forming invertebrate densities (c); and substrate percent composition (d) for Transect 20 at Snakehead Bank.



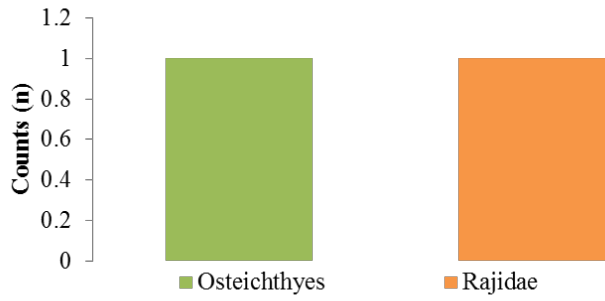
(c)

Family	Density (ind.*100 m <sup>-2</sup> )
<b>Fish</b>	<b>2.13</b>
Bathymasteridae	1.75
Hexagrammidae	0.05
Osteichthyes	0.22
Pleuronectidae	0.05
Sebastidae	0.05
<b>Pennatulacean</b>	<b>0.22</b>
Pennatulacea	0.22
<b>Soft Coral</b>	<b>0.05</b>
Primnoidae	0.05
<b>Sponge</b>	<b>0.38</b>
Demospongiae	0.33
Hexactinellida	0.05



Transect 21. -- Fish and crab counts (a); structure-forming invertebrate counts (b); fish, crab, and structure-forming invertebrate densities (c); and substrate percent composition (d) for Transect 21 at Snakehead Bank.

**Fish and Crab Counts**



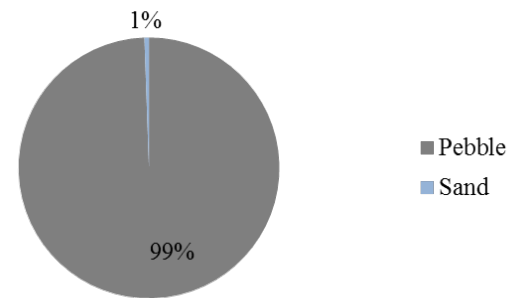
**(a) Structure-forming Invertebrate Counts (b)**

N/A

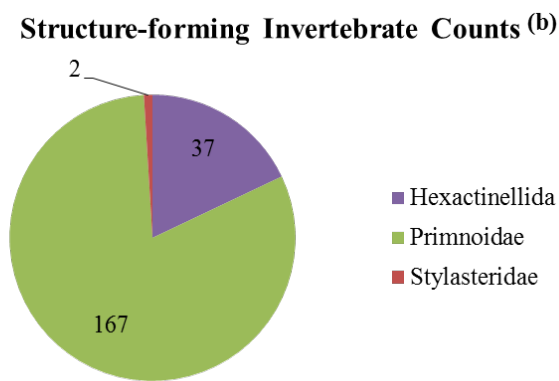
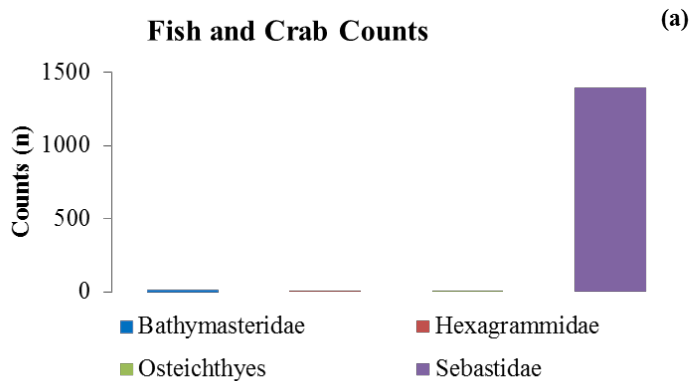
**(c) (d)**

Family	Density (ind.*100 m <sup>-2</sup> )
<b>Fish</b>	<b>0.12</b>
Osteichthyes	0.06
Rajidae	0.06

**Substrate Percent Composition**

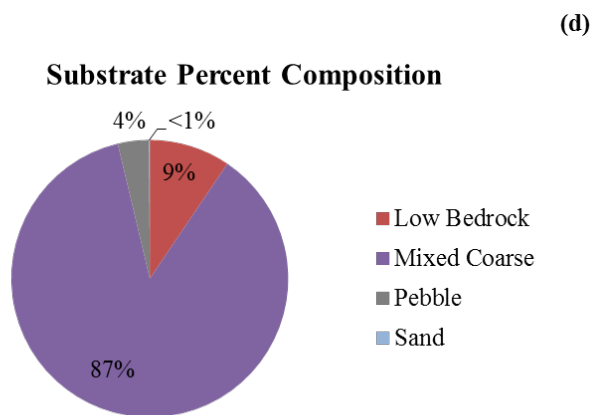


Transect 22. -- Fish and crab counts (a); structure-forming invertebrate counts (b); fish, crab, and structure-forming invertebrate densities (c); and substrate percent composition (d) for Transect 22 at Snakehead Bank.

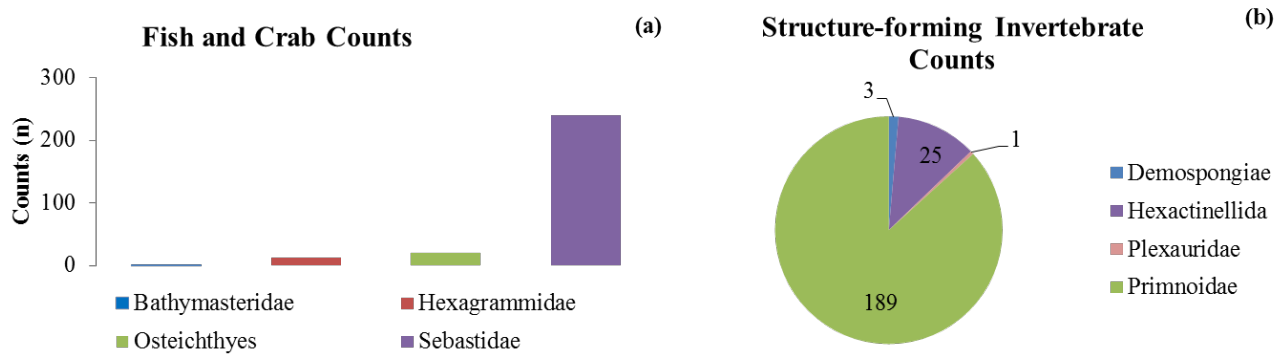


(c)

Family	Density (ind.*100 m <sup>-2</sup> )
<b>Fish</b>	<b>102.23</b>
Bathymasteridae	0.58
Hexagrammidae	0.72
Osteichthyes	0.43
Sebastidae	100.49
<b>Hydrocoral</b>	<b>0.14</b>
Stylasteridae	0.14
<b>Soft Coral</b>	<b>12.05</b>
Primnoidae	12.05
<b>Sponge</b>	<b>2.67</b>
Hexactinellida	2.67

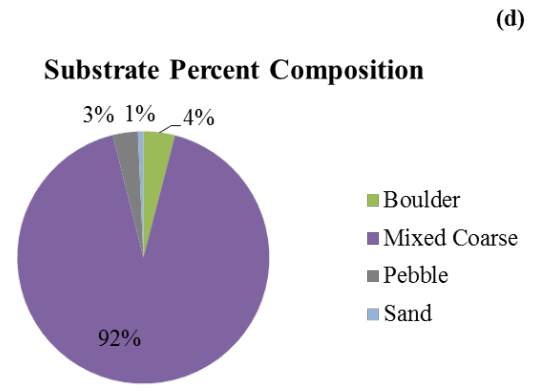


Transect 23. -- Fish and crab counts (a); structure-forming invertebrate counts (b); fish, crab, and structure-forming invertebrate densities (c); and substrate percent composition (d) for Transect 23 at Snakehead Bank.

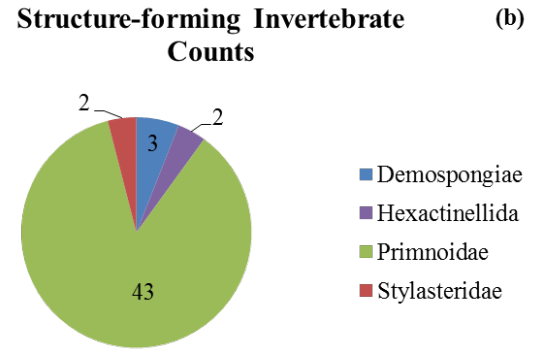
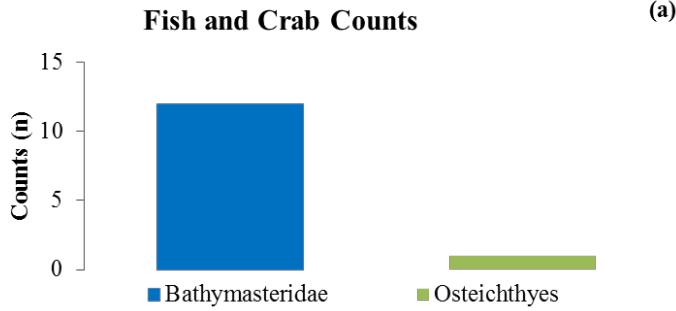


**(c)**

Family	Density (ind.*100 m <sup>-2</sup> )
<b>Fish</b>	<b>50.15</b>
Bathymasteridae	0.18
Hexagrammidae	2.38
Osteichthyes	3.66
Sebastidae	43.93
<b>Soft Coral</b>	<b>34.78</b>
Plexauridae	0.18
Primnoidae	34.59
<b>Sponge</b>	<b>5.12</b>
Demospongiae	0.55
Hexactinellida	4.58

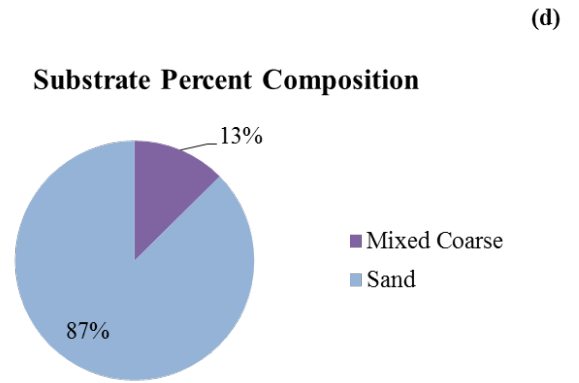


Transect 24. -- Fish and crab counts (a); structure-forming invertebrate counts (b); fish, crab, and structure-forming invertebrate densities (c); and substrate percent composition (d) for Transect 24 at Snakehead Bank.

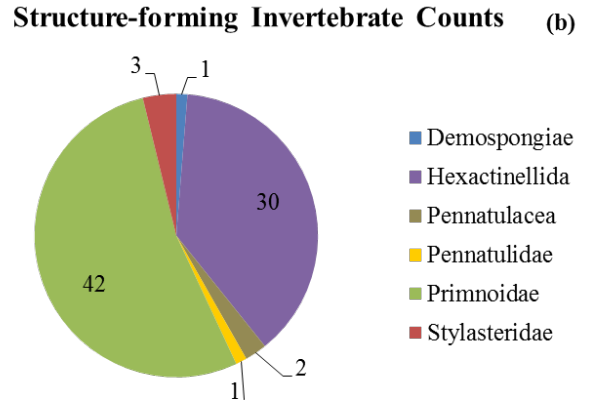
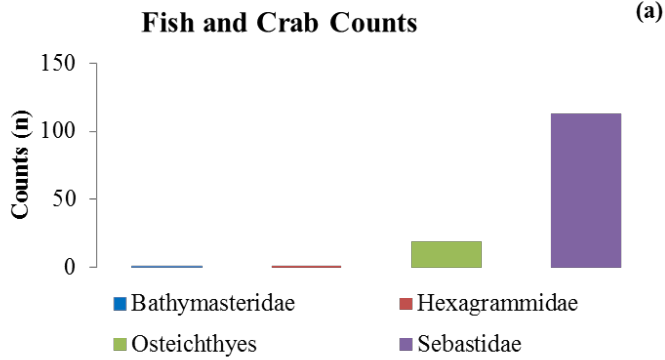


(c)

Family	Density (ind.*100 m <sup>-2</sup> )
<b>Fish</b>	<b>0.84</b>
Bathymasteridae	0.78
Osteichthyes	0.06
<b>Hydrocoral</b>	<b>0.13</b>
Stylasteridae	0.13
<b>Soft Coral</b>	<b>2.78</b>
Primnoidae	2.78
<b>Sponge</b>	<b>0.32</b>
Demospongiae	0.19
Hexactinellida	0.13

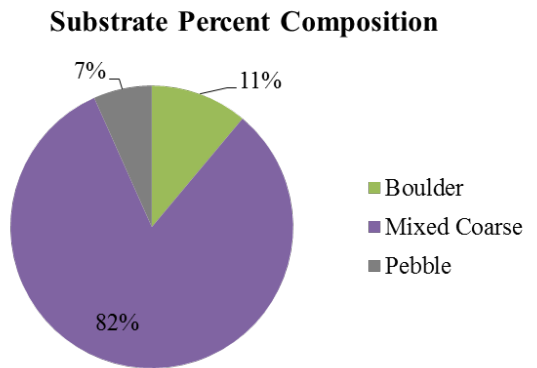


Transect 25. -- Fish and crab counts (a); structure-forming invertebrate counts (b); fish, crab, and structure-forming invertebrate densities (c); and substrate percent composition (d) for Transect 25 at Snakehead Bank.



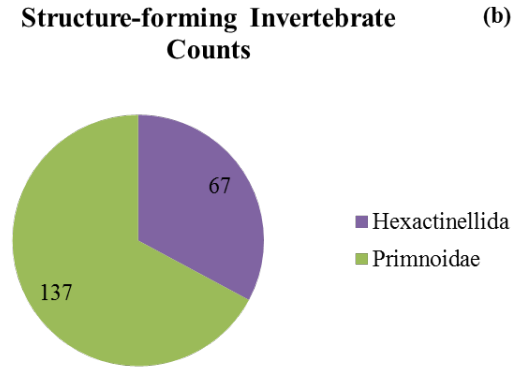
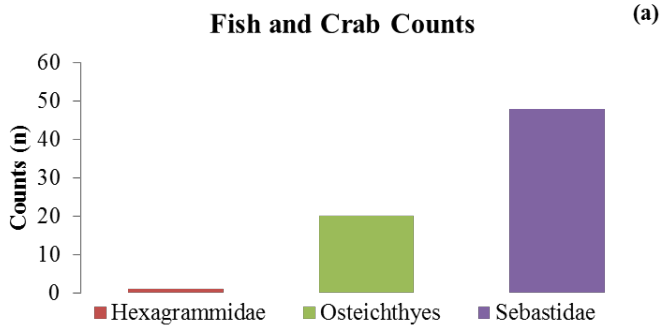
(c) (d)

Family	Density (ind.*100 m <sup>-2</sup> )
<b>Fish</b>	<b>7.68</b>
Bathymasteridae	0.06
Hexagrammidae	0.06
Osteichthyes	1.09
Sebastidae	6.48
<b>Hydrocoral</b>	<b>0.17</b>
Stylasteridae	0.17
<b>Pennatulacean</b>	<b>0.17</b>
Pennatulacea	0.11
Pennatulidae	0.06
<b>Soft Coral</b>	<b>2.41</b>
Primnoidae	2.41
<b>Sponge</b>	<b>1.78</b>
Demospongiae	0.06
Hexactinellida	1.72



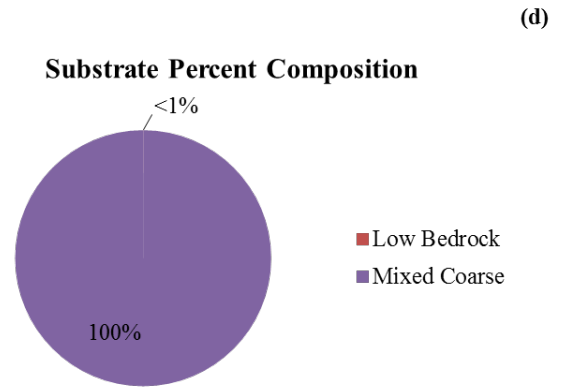
Transect 26. -- Fish and crab counts (a); structure-forming invertebrate counts (b); fish, crab, and structure-forming invertebrate densities (c); and substrate percent composition (d) for Transect 26 at Snakehead Bank.



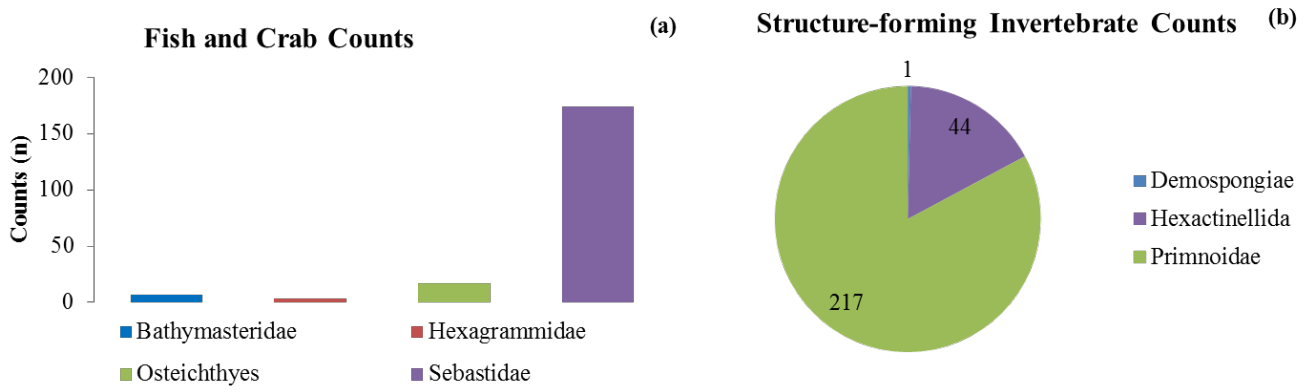


(c)

Family	Density (ind.*100 m <sup>-2</sup> )
<b>Fish</b>	<b>3.28</b>
Hexagrammidae	0.05
Osteichthyes	0.95
Sebastidae	2.28
<b>Soft Coral</b>	<b>6.51</b>
Primnoidae	6.51
<b>Sponge</b>	<b>3.18</b>
Hexactinellida	3.18

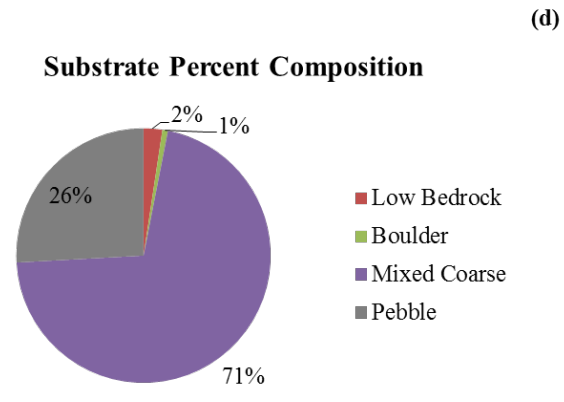


Transect 27. -- Fish and crab counts (a); structure-forming invertebrate counts (b); fish, crab, and structure-forming invertebrate densities (c); and substrate percent composition (d) for Transect 27 at Snakehead Bank.



**(c)**

Family	Density (ind.*100 m <sup>-2</sup> )
<b>Fish</b>	<b>10.97</b>
Bathymasteridae	0.38
Hexagrammidae	0.16
Osteichthyes	0.93
Sebastidae	9.50
<b>Hydrocoral</b>	<b>1.31</b>
Stylasteridae	1.31
<b>Soft Coral</b>	<b>11.84</b>
Primnoidae	11.84
<b>Sponge</b>	<b>2.46</b>
Demospongiae	0.05
Hexactinellida	2.40



Transect 28. -- Fish and crab counts (a); structure-forming invertebrate counts (b); fish, crab, and structure-forming invertebrate densities (c); and substrate percent composition (d) for Transect 28 at Snakehead Bank.



## APPENDICES

Appendix Table A. -- Haul data (latitude, longitude, depth, distance fished, and swath) for both 49 Fathom Pinnacle site and Snakehead Bank site.

Transect ID	Station ID	Start longitude	End longitude	Start latitude	End latitude	Depth	Distance fished	Swath
Transect 1	49 Fathom Pinnacle	-152.4	-152.43	56.38	56.37	95	1673.89	2.43
Transect 2	49 Fathom Pinnacle	-152.42	-152.44	56.37	56.36	100	1106.91	2.43
Transect 3	49 Fathom Pinnacle	-152.42	-152.43	56.38	56.38	102	1060.4	2.43
Transect 4	49 Fathom Pinnacle	-152.39	-152.4	56.38	56.37	94	673.04	2.43
Transect 5	49 Fathom Pinnacle	-152.38	-152.39	56.38	56.37	89	674.33	2.43
Transect 6	49 Fathom Pinnacle	-152.38	-152.39	56.37	56.38	84	279.15	2.43
Transect 7	49 Fathom Pinnacle	-152.39	-152.39	56.37	56.38	91	500.53	2.43
Transect 8	49 Fathom Pinnacle	-152.43	-152.43	56.37	56.38	88	524.49	2.43
Transect 9	49 Fathom Pinnacle	-152.44	-152.44	56.38	56.38	96	544.76	2.43
Transect 10	49 Fathom Pinnacle	-152.4	-152.41	56.38	56.38	93.3	563.72	2.43
Transect 11	49 Fathom Pinnacle	-152.39	-152.41	56.38	56.37	95.1	1315.54	2.43
Transect 12	49 Fathom Pinnacle	-152.39	-152.41	56.37	56.37	93.3	1375.77	2.43
Transect 13	49 Fathom Pinnacle	-152.41	-152.43	56.37	56.36	139	1237.15	2.43
Transect 14	49 Fathom Pinnacle	-152.43	-152.45	56.36	56.35	113.4	1355.88	2.43
Transect 15	49 Fathom Pinnacle	-152.4	-152.43	56.38	56.37	98	1764.55	2.43
Transect 16	49 Fathom Pinnacle	-152.43	-152.45	56.38	56.37	146.3	1571.4	2.43
Transect 17	Snakehead Bank	-153.62	-153.62	55.97	55.97	120.7	966.07	2.43
Transect 18	Snakehead Bank	-153.72	-153.72	56.01	56	82.3	621.92	2.43
Transect 19	Snakehead Bank	-153.7	-153.71	56.04	56.04	62.2	544.37	2.43

Appendix Table A. – Continued.

Transect ID	Station ID	Start longitude	End longitude	Start latitude	End latitude	Depth	Distance fished	Swath
Transect 20	Snakehead Bank	-153.76	-153.77	56.01	56.01	107.9	538.17	2.43
Transect 21	Snakehead Bank	-153.84	-153.85	56.03	56.02	82.3	753.64	2.43
Transect 22	Snakehead Bank	-153.9	-153.91	56.05	56.04	91.4	685.32	2.43
Transect 23	Snakehead Bank	-153.7	-153.71	56.06	56.06	69.5	570.43	2.43
Transect 24	Snakehead Bank	-153.72	-153.71	56.05	56.05	64	224.84	2.43
Transect 25	Snakehead Bank	-153.83	-153.83	56.04	56.04	95.1	636.23	2.43
Transect 26	Snakehead Bank	-153.85	-153.84	56.03	56.03	76.8	717.76	2.43
Transect 27	Snakehead Bank	-153.71	-153.7	56.06	56.06	65.3	866.38	2.43
Transect 28	Snakehead Bank	-153.75	-153.74	56.05	56.05	73.9	753.94	2.43
Transect 29	49 Fathom Pinnacle	-152.4	-152.43	56.38	56.37	95.1	1546.67	2.43
Transect 30	49 Fathom Pinnacle	-152.41	-152.42	56.37	56.36	186.5	1347.82	2.43
Transect 31	49 Fathom Pinnacle	-152.43	-152.44	56.38	56.38	87	178.75	2.43
Transect 32	49 Fathom Pinnacle	-152.42	-152.41	56.37	56.36	152	1163.51	2.43
Transect 33	49 Fathom Pinnacle	-152.43	-152.44	56.36	56.37	101	919.56	2.43
Transect 34	49 Fathom Pinnacle	-152.39	-152.39	56.38	56.39	179	932.23	2.43
Transect 35	49 Fathom Pinnacle	-152.4	-152.42	56.38	56.38	91	1153.3	2.43
Transect 36	49 Fathom Pinnacle	-152.41	-152.4	56.37	56.37	94	1203.45	2.43
Transect 37	49 Fathom Pinnacle	-152.42	-152.43	56.36	56.36	105	1334.95	2.43
Transect 38	49 Fathom Pinnacle	-152.45	-152.44	56.37	56.38	89	1366.76	2.43
Transect 39	49 Fathom Pinnacle	-152.43	-152.41	56.37	56.38	95	1106.18	2.43
Transect 40	49 Fathom Pinnacle	-152.41	-152.4	56.37	56.38	91	931.18	2.43

Appendix Table B. -- Count and density data for all identified organisms (fish, crabs, corals, and sponges) at 49 Fathom Pinnacle site.

Transect ID	General Taxon	Family	Scientific Name	Counts	Density (ind. *100 m <sup>-2</sup> )
Transect_1	Fish	Bathymasteridae	<i>Bathymaster signatus</i>	2	0.05
Transect_1	Fish	Osteichthyes	Unid. Fish	18	0.44
Transect_1	Fish	Sebastidae	<i>Sebastes polyspinis</i>	6	0.15
Transect_1	Fish	Sebastidae	<i>Sebastes sp.</i>	164	4.03
Transect_1	Fish	Sebastidae	<i>Sebastes variabilis</i>	1	0.02
Transect_1	Hydrocoral	Stylasteridae	Stylasteridae	1345	33.07
Transect_1	Soft Coral	Primnoidae	Primnoidae	17	0.42
Transect_2	Fish	Bathymasteridae	<i>Bathymaster signatus</i>	22	0.82
Transect_2	Fish	Osteichthyes	Unid. Fish	35	1.30
Transect_2	Fish	Sebastidae	<i>Sebastes polyspinis</i>	4	0.15
Transect_2	Fish	Sebastidae	<i>Sebastes sp.</i>	281	10.45
Transect_2	Fish	Sebastidae	<i>Sebastes variabilis</i>	3	0.11
Transect_2	Fish	Zaproridae	<i>Zaprora silenus</i>	1	0.04
Transect_2	Hydrocoral	Stylasteridae	Stylasteridae	1871	69.56
Transect_2	Soft Coral	Primnoidae	Fanellia/Arthrogorgia	2	0.07
Transect_2	Soft Coral	Primnoidae	Primnoidae	163	6.06
Transect_2	Sponge	Demospongiae	Demospongiae	21	0.78
Transect_2	Sponge	Hexactinellida	Hexactinellida	170	6.32
Transect_3	Fish	Bathymasteridae	<i>Bathymaster signatus</i>	2	0.08
Transect_3	Fish	Gadidae	<i>Gadus macrocephalus</i>	2	0.08
Transect_3	Fish	Osteichthyes	Unid. Fish	6	0.23
Transect_3	Fish	Pleuronectidae	Pleuronectidae	2	0.08
Transect_3	Fish	Rajidae	<i>Raja binoculata</i>	2	0.08

Appendix Table B. – Continued.

Transect ID	General Taxon	Family	Scientific Name	Counts	Density (ind.*100 m <sup>-2</sup> )
Transect_3	Fish	Rajidae	<i>Raja</i> sp.	1	0.04
Transect_3	Fish	Sebastidae	<i>Sebastes</i> sp.	8	0.31
Transect_3	Hydrocoral	Stylasteridae	Stylasteridae	4	0.16
Transect_3	Sponge	Demospongiae	Demospongiae	1	0.04
Transect_3	Sponge	Hexactinellida	Hexactinellida	17	0.66
Transect_4	Fish	Bathymasteridae	<i>Bathymaster signatus</i>	7	0.43
Transect_4	Fish	Hexagrammidae	<i>Pleurogrammus monopterygius</i>	3	0.18
Transect_4	Fish	Osteichthyes	Unid. Fish	10	0.61
Transect_4	Fish	Pleuronectidae	Pleuronectidae	1	0.06
Transect_4	Fish	Sebastidae	<i>Sebastes polyspinis</i>	5	0.31
Transect_4	Fish	Sebastidae	<i>Sebastes</i> sp.	268	16.39
Transect_4	Fish	Sebastidae	<i>Sebastes variabilis</i>	9	0.55
Transect_4	Hydrocoral	Stylasteridae	Stylasteridae	3300	201.76
Transect_4	Sponge	Calcarea	Calcarea	2	0.12
Transect_4	Sponge	Demospongiae	Demospongiae	5	0.31
Transect_4	Sponge	Hexactinellida	Hexactinellida	30	1.83
Transect_5	Fish	Bathymasteridae	<i>Bathymaster signatus</i>	3	0.18
Transect_5	Fish	Hexagrammidae	<i>Pleurogrammus monopterygius</i>	3	0.18
Transect_5	Fish	Osteichthyes	Unid. Fish	5	0.31
Transect_5	Fish	Sebastidae	<i>Sebastes</i> sp.	193	11.78
Transect_5	Fish	Sebastidae	<i>Sebastes variabilis</i>	10	0.61
Transect_5	Hydrocoral	Stylasteridae	Stylasteridae	6399	390.53
Transect_5	Sponge	Demospongiae	Demospongiae	22	1.34
Transect_5	Sponge	Hexactinellida	Hexactinellida	33	2.01

Appendix Table B. – Continued.

Transect ID	General Taxon	Family	Scientific Name	Counts	Density (ind.*100 m <sup>-2</sup> )
Transect_6	Fish	Bathymasteridae	<i>Bathymaster signatus</i>	8	1.18
Transect_6	Fish	Osteichthyes	Unid. Fish	3	0.44
Transect_6	Fish	Sebastidae	<i>Sebastes</i> sp.	34	5.01
Transect_6	Fish	Sebastidae	<i>Sebastes variabilis</i>	5	0.74
Transect_6	Hydrocoral	Stylasteridae	Stylasteridae	5479	807.64
Transect_6	Sponge	Demospongiae	Demospongiae	25	3.69
Transect_6	Sponge	Hexactinellida	Hexactinellida	62	9.14
Transect_7	Fish	Bathymasteridae	<i>Bathymaster signatus</i>	3	0.25
Transect_7	Fish	Hexagrammidae	Hexagrammidae	1	0.08
Transect_7	Fish	Osteichthyes	Unid. Fish	8	0.66
Transect_7	Fish	Pleuronectidae	Pleuronectidae	3	0.25
Transect_7	Fish	Sebastidae	<i>Sebastes polyspinis</i>	3	0.25
Transect_7	Fish	Sebastidae	<i>Sebastes</i> sp.	220	18.09
Transect_7	Fish	Sebastidae	<i>Sebastes variabilis</i>	6	0.49
Transect_7	Hydrocoral	Stylasteridae	Stylasteridae	3642	299.48
Transect_7	Sponge	Demospongiae	Demospongiae	38	3.12
Transect_7	Sponge	Hexactinellida	Hexactinellida	105	8.63
Transect_8	Fish	Bathymasteridae	<i>Bathymaster signatus</i>	4	0.31
Transect_8	Fish	Osteichthyes	Unid. Fish	12	0.94
Transect_8	Fish	Sebastidae	<i>Sebastes polyspinis</i>	2	0.16
Transect_8	Fish	Sebastidae	<i>Sebastes</i> sp.	94	7.38
Transect_8	Fish	Sebastidae	<i>Sebastes variabilis</i>	1	0.08
Transect_8	Hydrocoral	Stylasteridae	Stylasteridae	554	43.47
Transect_8	Soft Coral	Primnoidae	<i>Fanellia</i> sp.	1	0.08



Appendix Table B. – Continued.

Transect ID	General Taxon	Family	Scientific Name	Counts	Density (ind.*100 m <sup>-2</sup> )
Transect_8	Soft Coral	Primnoidae	<i>Plumarella/Thouarella</i>	3	0.24
Transect_8	Soft Coral	Primnoidae	Primnoidae	10	0.78
Transect_8	Sponge	Demospongiae	Demospongiae	21	1.65
Transect_8	Sponge	Hexactinellida	Hexactinellida	36	2.82
Transect_9	Fish	Bathymasteridae	<i>Bathymaster signatus</i>	9	0.68
Transect_9	Fish	Osteichthyes	Unid. Fish	7	0.53
Transect_9	Fish	Pleuronectidae	Pleuronectidae	3	0.23
Transect_9	Fish	Sebastidae	<i>Sebastes</i> sp.	13	0.98
Transect_9	Fish	Sebastidae	<i>Sebastes variabilis</i>	1	0.08
Transect_9	Hydrocoral	Stylasteridae	Stylasteridae	912	68.89
Transect_9	Soft Coral	Primnoidae	<i>Plumarella</i> sp.	13	0.98
Transect_9	Soft Coral	Primnoidae	Primnoidae	15	1.13
Transect_9	Sponge	Demospongiae	Demospongiae	26	1.96
Transect_9	Sponge	Hexactinellida	Hexactinellida	93	7.03
Transect_9	Sponge	Porifera	Porifera	8	0.60
Transect_10	Decapod	Decapoda	Decapoda	1	0.07
Transect_10	Fish	Osteichthyes	Unid. Fish	9	0.66
Transect_10	Fish	Rajidae	Rajidae	1	0.07
Transect_10	Fish	Sebastidae	<i>Sebastes</i> sp.	24	1.75
Transect_10	Fish	Sebastidae	<i>Sebastes variabilis</i>	29	2.12
Transect_10	Fish	Zaproridae	<i>Zaprora silenus</i>	2	0.15
Transect_10	Hydrocoral	Stylasteridae	Stylasteridae	730	53.29
Transect_10	Soft Coral	Primnoidae	<i>Plumarella</i> sp.	1	0.07
Transect_10	Sponge	Demospongiae	Demospongiae	3	0.22

Appendix Table B. – Continued.

Transect ID	General Taxon	Family	Scientific Name	Counts	Density (ind.*100 m <sup>-2</sup> )
Transect_11	Fish	Bathymasteridae	<i>Bathymaster signatus</i>	14	0.44
Transect_11	Fish	Bathymasteridae	Bathymasteridae	1	0.03
Transect_11	Fish	Hexagrammidae	<i>Pleurogrammus monoptygius</i>	2	0.06
Transect_11	Fish	Osteichthyes	Unid. Fish	28	0.88
Transect_11	Fish	Sebastidae	<i>Sebastes polyspinis</i>	1	0.03
Transect_11	Fish	Sebastidae	<i>Sebastes</i> sp.	127	3.97
Transect_11	Fish	Sebastidae	<i>Sebastes variabilis</i>	6	0.19
Transect_11	Fish	Zaproridae	<i>Zaprora silenus</i>	5	0.16
Transect_11	Hydrocoral	Stylasteridae	Stylasteridae	1833	57.33
Transect_11	Soft Coral	Primnoidae	<i>Fanellia</i> sp.	5	0.16
Transect_11	Soft Coral	Primnoidae	<i>Plumarella</i> sp.	4	0.13
Transect_11	Soft Coral	Primnoidae	Primnoidae	5	0.16
Transect_11	Sponge	Demospongiae	Demospongiae	14	0.44
Transect_11	Sponge	Hexactinellida	Hexactinellida	29	0.91
Transect_12	Fish	Bathymasteridae	<i>Bathymaster signatus</i>	9	0.27
Transect_12	Fish	Hexagrammidae	<i>Pleurogrammus monoptygius</i>	2	0.06
Transect_12	Fish	Osteichthyes	Unid. Fish	20	0.60
Transect_12	Fish	Sebastidae	<i>Sebastes polyspinis</i>	2	0.06
Transect_12	Fish	Sebastidae	<i>Sebastes</i> sp.	278	8.32
Transect_12	Fish	Sebastidae	<i>Sebastes variabilis</i>	7	0.21
Transect_12	Hydrocoral	Stylasteridae	Stylasteridae	1319	39.45
Transect_12	Soft Coral	Primnoidae	Primnoidae	1	0.03
Transect_12	Sponge	Demospongiae	Demospongiae	15	0.45
Transect_12	Sponge	Hexactinellida	Hexactinellida	76	2.27

Appendix Table B. – Continued.

Transect ID	General Taxon	Family	Scientific Name	Counts	Density (ind.*100 m <sup>-2</sup> )
Transect_13	Fish	Bathymasteridae	<i>Bathymaster signatus</i>	2	0.07
Transect_13	Fish	Osteichthyes	Unid. Fish	12	0.40
Transect_13	Fish	Pleuronectidae	Pleuronectidae	1	0.03
Transect_13	Fish	Sebastidae	<i>Sebastes alutus</i>	1	0.03
Transect_13	Fish	Sebastidae	<i>Sebastes polyspinis</i>	3	0.10
Transect_13	Fish	Sebastidae	<i>Sebastes</i> sp.	500	16.63
Transect_13	Fish	Sebastidae	<i>Sebastes variabilis</i>	2	0.07
Transect_13	Hydrocoral	Stylasteridae	Stylasteridae	1042	34.67
Transect_13	Soft Coral	Primnoidae	Primnoidae	9	0.30
Transect_13	Sponge	Demospongiae	Demospongiae	21	0.70
Transect_13	Sponge	Hexactinellida	Hexactinellida	119	3.96
Transect_14	Fish	Bathymasteridae	<i>Bathymaster signatus</i>	3	0.09
Transect_14	Fish	Hexagrammidae	Hexagrammidae	1	0.03
Transect_14	Fish	Osteichthyes	Unid. Fish	22	0.67
Transect_14	Fish	Pleuronectidae	<i>Hippoglossus stenolepis</i>	1	0.03
Transect_14	Fish	Pleuronectidae	Pleuronectidae	1	0.03
Transect_14	Fish	Sebastidae	<i>Sebastes polyspinis</i>	2	0.06
Transect_14	Fish	Sebastidae	<i>Sebastes</i> sp.	163	4.95
Transect_14	Fish	Sebastidae	<i>Sebastes variabilis</i>	18	0.55
Transect_14	Fish	Zaproridae	<i>Zaprora silenus</i>	1	0.03
Transect_14	Hydrocoral	Stylasteridae	Stylasteridae	1023	31.06
Transect_14	Soft Coral	Primnoidae	<i>Plumarella</i> sp.	2	0.06
Transect_14	Soft Coral	Primnoidae	Primnoidae	69	2.09
Transect_14	Sponge	Demospongiae	Demospongiae	79	2.40

Appendix Table B. – Continued.

Transect ID	General Taxon	Family	Scientific Name	Counts	Density (ind.*100 m <sup>-2</sup> )
Transect_14	Sponge	Hexactinellida	Hexactinellida	100	3.04
Transect_15	Fish	Bathymasteridae	Bathymasteridae	12	0.28
Transect_15	Fish	Hexagrammidae	Hexagrammidae	1	0.02
Transect_15	Fish	Osteichthyes	Unid. Fish	24	0.56
Transect_15	Fish	Pleuronectidae	Pleuronectidae	1	0.02
Transect_15	Fish	Sebastidae	<i>Sebastes</i> sp.	75	1.75
Transect_15	Fish	Sebastidae	<i>Sebastes variabilis</i>	4	0.09
Transect_15	Hydrocoral	Stylasteridae	Stylasteridae	1653	38.54
Transect_15	Soft Coral	Alcyonacea	Plexauridae/Acanthogorgiidae	1	0.02
Transect_15	Soft Coral	Primnoidae	Fanellia/Arthrogorgia	1	0.02
Transect_15	Soft Coral	Primnoidae	Primnoidae	90	2.10
Transect_15	Sponge	Demospongiae	Demospongiae	33	0.77
Transect_15	Sponge	Hexactinellida	Hexactinellida	17	0.40
Transect_16	Fish	Bathymasteridae	Bathymasteridae	4	0.10
Transect_16	Fish	Osteichthyes	Unid. Fish	29	0.76
Transect_16	Fish	Pleuronectidae	Pleuronectidae	1	0.03
Transect_16	Fish	Sebastidae	<i>Sebastes</i> sp.	64	1.68
Transect_16	Hydrocoral	Stylasteridae	Stylasteridae	1325	34.70
Transect_16	Soft Coral	Primnoidae	Primnoidae	190	4.98
Transect_16	Sponge	Demospongiae	Demospongiae	268	7.02
Transect_16	Sponge	Hexactinellida	Hexactinellida	220	5.76
Transect_29	Fish	Bathymasteridae	<i>Bathymaster signatus</i>	3	0.08
Transect_29	Fish	Hexagrammidae	Hexagrammidae	1	0.03
Transect_29	Fish	Osteichthyes	Unid. Fish	23	0.61

Appendix Table B. – Continued.

Transect ID	General Taxon	Family	Scientific Name	Counts	Density (ind.*100 m <sup>-2</sup> )
Transect_29	Fish	Sebastidae	<i>Sebastes polyspinis</i>	11	0.29
Transect_29	Fish	Sebastidae	<i>Sebastes</i> sp.	210	5.59
Transect_29	Hydrocoral	Stylasteridae	Stylasteridae	1954	52.00
Transect_29	Sponge	Demospongiae	Demospongiae	26	0.69
Transect_29	Sponge	Hexactinellida	Hexactinellida	160	4.26
Transect_30	Fish	Bathymasteridae	<i>Bathymaster signatus</i>	2	0.06
Transect_30	Fish	Hexagrammidae	Hexagrammidae	1	0.03
Transect_30	Fish	Osteichthyes	Unid. Fish	12	0.37
Transect_30	Fish	Rajidae	<i>Raja binoculata</i>	1	0.03
Transect_30	Fish	Sebastidae	<i>Sebastes</i> sp.	80	2.44
Transect_30	Hydrocoral	Stylasteridae	Stylasteridae	1100	33.59
Transect_30	Soft Coral	Primnoidae	<i>Plumarella</i> sp.	1	0.03
Transect_30	Soft Coral	Primnoidae	Primnoidae	2	0.06
Transect_30	Sponge	Demospongiae	Demospongiae	118	3.60
Transect_30	Sponge	Hexactinellida	Hexactinellida	159	4.85
Transect_31	Fish	Bathymasteridae	<i>Bathymaster signatus</i>	1	0.23
Transect_31	Fish	Sebastidae	<i>Sebastes</i> sp.	2	0.46
Transect_31	Hydrocoral	Stylasteridae	Stylasteridae	377	86.79
Transect_31	Soft Coral	Primnoidae	Primnoidae	1	0.23
Transect_31	Sponge	Hexactinellida	Hexactinellida	55	12.66
Transect_32	Fish	Bathymasteridae	<i>Bathymaster signatus</i>	12	0.42
Transect_32	Fish	Osteichthyes	Unid. Fish	21	0.74
Transect_32	Fish	Sebastidae	<i>Sebastes alutus</i>	1	0.04
Transect_32	Fish	Sebastidae	<i>Sebastes polyspinis</i>	3	0.11

Appendix Table B. – Continued.

Transect ID	General Taxon	Family	Scientific Name	Counts	Density (ind.*100 m <sup>-2</sup> )
Transect_32	Fish	Sebastidae	<i>Sebastes</i> sp.	257	9.09
Transect_32	Hydrocoral	Stylasteridae	Stylasteridae	1386	49.04
Transect_32	Soft Coral	Primnoidae	<i>Plumarella</i> sp.	38	1.34
Transect_32	Soft Coral	Primnoidae	Primnoidae	2	0.07
Transect_32	Sponge	Demospongiae	Demospongiae	86	3.04
Transect_32	Sponge	Hexactinellida	Hexactinellida	289	10.22
Transect_33	Fish	Bathymasteridae	<i>Bathymaster signatus</i>	2	0.09
Transect_33	Fish	Osteichthyes	Unid. Fish	42	1.88
Transect_33	Fish	Sebastidae	<i>Sebastes</i> sp.	20	0.90
Transect_33	Hydrocoral	Stylasteridae	Stylasteridae	528	23.62
Transect_33	Soft Coral	Primnoidae	Primnoidae	31	1.39
Transect_33	Sponge	Demospongiae	Demospongiae	22	0.98
Transect_33	Sponge	Hexactinellida	Hexactinellida	161	7.21
Transect_34	Fish	Bathymasteridae	<i>Bathymaster signatus</i>	3	0.13
Transect_34	Fish	Hexagrammidae	<i>Pleurogrammus monopterygius</i>	1	0.04
Transect_34	Fish	Osteichthyes	Unid. Fish	31	1.37
Transect_34	Fish	Sebastidae	<i>Sebastes</i> sp.	97	4.28
Transect_34	Hydrocoral	Stylasteridae	Stylasteridae	2725	120.30
Transect_34	Soft Coral	Acanthogorgiidae	<i>Calcigorgia</i> sp.	1	0.04
Transect_34	Sponge	Hexactinellida	Hexactinellida	51	2.25
Transect_35	Fish	Bathymasteridae	<i>Bathymaster signatus</i>	7	0.25
Transect_35	Fish	Osteichthyes	Unid. Fish	31	1.11
Transect_35	Fish	Sebastidae	<i>Sebastes</i> sp.	136	4.85
Transect_35	Hydrocoral	Stylasteridae	Stylasteridae	1307	46.65

Appendix Table B. – Continued.

Transect ID	General Taxon	Family	Scientific Name	Counts	Density (ind.*100 m <sup>-2</sup> )
Transect_35	Soft Coral	Primnoidae	<i>Plumarella</i> sp.	20	0.71
Transect_35	Sponge	Demospongiae	Demospongiae	5	0.18
Transect_35	Sponge	Hexactinellida	Hexactinellida	92	3.28
Transect_36	Fish	Bathymasteridae	<i>Bathymaster signatus</i>	2	0.07
Transect_36	Fish	Hexagrammidae	Hexagrammidae	2	0.07
Transect_36	Fish	Osteichthyes	Unid. Fish	61	2.09
Transect_36	Fish	Rajidae	Rajidae	1	0.03
Transect_36	Fish	Sebastidae	<i>Sebastes</i> sp.	188	6.43
Transect_36	Hydrocoral	Stylasteridae	Stylasteridae	1278	43.72
Transect_36	Soft Coral	Primnoidae	Primnoidae	4	0.14
Transect_36	Sponge	Demospongiae	Demospongiae	13	0.44
Transect_36	Sponge	Hexactinellida	Hexactinellida	60	2.05
Transect_37	Fish	Osteichthyes	Unid. Fish	60	1.85
Transect_37	Fish	Sebastidae	<i>Sebastes</i> sp.	69	2.13
Transect_37	Hydrocoral	Stylasteridae	Stylasteridae	913	28.14
Transect_37	Soft Coral	Primnoidae	Primnoidae	49	1.51
Transect_37	Sponge	Demospongiae	Demospongiae	17	0.52
Transect_37	Sponge	Hexactinellida	Hexactinellida	527	16.25
Transect_38	Fish	Bathymasteridae	<i>Bathymaster signatus</i>	1	0.03
Transect_38	Fish	Osteichthyes	Unid. Fish	42	1.26
Transect_38	Fish	Rajidae	Rajidae	1	0.03
Transect_38	Fish	Sebastidae	<i>Sebastes</i> sp.	26	0.78
Transect_38	Hydrocoral	Stylasteridae	Stylasteridae	611	18.39
Transect_38	Soft Coral	Primnoidae	Primnoidae	94	2.83

Appendix Table B. – Continued.

Transect ID	General Taxon	Family	Scientific Name	Counts	Density (ind.*100 m <sup>-2</sup> )
Transect_38	Sponge	Demospongiae	Demospongiae	255	7.68
Transect_38	Sponge	Hexactinellida	Hexactinellida	376	11.32
Transect_39	Fish	Hexagrammidae	Hexagrammidae	1	0.04
Transect_39	Fish	Osteichthyes	Unid. Fish	75	2.79
Transect_39	Fish	Sebastidae	<i>Sebastes</i> sp.	39	1.45
Transect_39	Hydrocoral	Stylasteridae	Stylasteridae	680	25.30
Transect_39	Soft Coral	Primnoidae	Primnoidae	84	3.12
Transect_39	Sponge	Demospongiae	Demospongiae	25	0.93
Transect_39	Sponge	Hexactinellida	Hexactinellida	34	1.26
Transect_40	Fish	Bathymasteridae	<i>Bathymaster signatus</i>	5	0.22
Transect_40	Fish	Osteichthyes	Unid. Fish	18	0.80
Transect_40	Fish	Rajidae	Rajidae	1	0.04
Transect_40	Fish	Sebastidae	<i>Sebastes</i> sp.	94	4.15
Transect_40	Hydrocoral	Stylasteridae	Stylasteridae	787	34.78
Transect_40	Soft Coral	Primnoidae	<i>Plumarella</i> sp.	5	0.22
Transect_40	Sponge	Demospongiae	Demospongiae	3	0.13
Transect_40	Sponge	Hexactinellida	Hexactinellida	20	0.88



Appendix Table C. -- Count and density data for all identified organisms (fish, crabs, corals, and sponges) at Snakehead Bank site.

Transect ID	General Taxon	Family	Scientific Name	Counts	Density (ind.*100 m <sup>-2</sup> )
Transect_17	Fish	Bathymasteridae	<i>Bathymaster signatus</i>	19	0.81
Transect_17	Fish	Osteichthyes	Unid. Fish	14	0.60
Transect_17	Fish	Sebastidae	<i>Sebastes</i> sp.	11	0.47
Transect_17	Hydrocoral	Stylasteridae	Stylasteridae	265	11.29
Transect_17	Soft Coral	Primnoidae	Primnoidae	2	0.09
Transect_17	Sponge	Demospongiae	Demospongiae	29	1.24
Transect_17	Sponge	Hexactinellida	Hexactinellida	6	0.26
Transect_18	Fish	Bathymasteridae	<i>Bathymaster signatus</i>	5	0.33
Transect_18	Fish	Osteichthyes	Unid. Fish	5	0.33
Transect_18	Fish	Pleuronectidae	Pleuronectidae	6	0.40
Transect_18	Soft Coral	Primnoidae	Primnoidae	2	0.13
Transect_18	Sponge	Demospongiae	Demospongiae	1	0.07
Transect_19	Fish	Bathymasteridae	<i>Bathymaster signatus</i>	1	0.08
Transect_19	Fish	Hexagrammidae	<i>Ophiodon elongatus</i>	1	0.08
Transect_19	Fish	Osteichthyes	Unid. Fish	14	1.06
Transect_19	Fish	Sebastidae	<i>Sebastes</i> sp.	34	2.57
Transect_19	Fish	Sebastidae	<i>Sebastes variabilis</i>	13	0.98
Transect_19	Soft Coral	Primnoidae	Primnoidae	139	10.51
Transect_19	Sponge	Calcarea	Calcarea	13	0.98
Transect_19	Sponge	Demospongiae	Demospongiae	2	0.15
Transect_19	Sponge	Hexactinellida	Hexactinellida	110	8.32
Transect_20	Fish	Pleuronectidae	Pleuronectidae	5	0.38
Transect_20	Pennatulacean	Halipteridae	<i>Halipterus willemoesi</i>	2	0.15

Appendix Table C. – Continued.

Transect ID	General Taxon	Family	Scientific Name	Counts	Density (ind.*100 m <sup>-2</sup> )
Transect_20	Pennatulacean	Pennatulidae	<i>Ptilosarcus gurneyi</i>	1	0.08
Transect_21	Fish	Bathymasteridae	<i>Bathymaster signatus</i>	1	0.05
Transect_21	Fish	Bathymasteridae	Bathymasteridae	31	1.69
Transect_21	Fish	Hexagrammidae	Hexagrammidae	1	0.05
Transect_21	Fish	Osteichthyes	Unid. Fish	4	0.22
Transect_21	Fish	Pleuronectidae	Pleuronectidae	1	0.05
Transect_21	Fish	Sebastidae	<i>Sebastes</i> sp.	1	0.05
Transect_21	Pennatulacean	Pennatulacea	Pennatulacean	4	0.22
Transect_21	Soft Coral	Primnoidae	Primnoidae	1	0.05
Transect_21	Sponge	Demospongiae	Demospongiae	6	0.33
Transect_21	Sponge	Hexactinellida	Hexactinellida	1	0.05
Transect_22	Fish	Osteichthyes	Unid. Fish	1	0.06
Transect_22	Fish	Rajidae	Rajidae	1	0.06
Transect_23	Fish	Bathymasteridae	<i>Bathymaster signatus</i>	4	0.29
Transect_23	Fish	Bathymasteridae	Bathymasteridae	4	0.29
Transect_23	Fish	Hexagrammidae	<i>Ophiodon elongatus</i>	10	0.72
Transect_23	Fish	Osteichthyes	Unid. Fish	6	0.43
Transect_23	Fish	Sebastidae	<i>Sebastes</i> sp.	55	3.97
Transect_23	Fish	Sebastidae	<i>Sebastes variabilis</i>	1338	96.53
Transect_23	Hydrocoral	Stylasteridae	Stylasteridae	2	0.14
Transect_23	Soft Coral	Primnoidae	Primnoidae	167	12.05
Transect_23	Sponge	Hexactinellida	Hexactinellida	37	2.67
Transect_24	Fish	Bathymasteridae	<i>Bathymaster signatus</i>	1	0.18
Transect_24	Fish	Hexagrammidae	Hexagrammidae	5	0.92
Transect_24	Fish	Hexagrammidae	<i>Ophiodon elongatus</i>	8	1.46
Transect_24	Fish	Osteichthyes	Unid. Fish	20	3.66

Appendix Table C. – Continued.

Transect ID	General Taxon	Family	Scientific Name	Counts	Density (ind.*100 m <sup>-2</sup> )
Transect_24	Fish	Sebastidae	<i>Sebastes polyspinis</i>	2	0.37
Transect_24	Fish	Sebastidae	<i>Sebastes</i> sp.	181	33.13
Transect_24	Fish	Sebastidae	<i>Sebastes variabilis</i>	57	10.43
Transect_24	Soft Coral	Plexauridae	Plexauridae	1	0.18
Transect_24	Soft Coral	Primnoidae	Fanellia/Arthrogorgia	1	0.18
Transect_24	Soft Coral	Primnoidae	Primnoidae	188	34.41
Transect_24	Sponge	Demospongiae	Demospongiae	3	0.55
Transect_24	Sponge	Hexactinellida	Hexactinellida	25	4.58
Transect_25	Fish	Bathymasteridae	Bathymasteridae	12	0.78
Transect_25	Fish	Osteichthyes	Unid. Fish	1	0.06
Transect_25	Hydrocoral	Stylasteridae	Stylasteridae	2	0.13
Transect_25	Soft Coral	Primnoidae	Primnoidae	43	2.78
Transect_25	Sponge	Demospongiae	Demospongiae	3	0.19
Transect_25	Sponge	Hexactinellida	Hexactinellida	2	0.13
Transect_26	Fish	Bathymasteridae	<i>Bathymaster signatus</i>	1	0.06
Transect_26	Fish	Hexagrammidae	<i>Ophiodon elongatus</i>	1	0.06
Transect_26	Fish	Osteichthyes	Unid. Fish	19	1.09
Transect_26	Fish	Sebastidae	<i>Sebastes</i> sp.	105	6.02
Transect_26	Fish	Sebastidae	<i>Sebastes variabilis</i>	8	0.46
Transect_26	Hydrocoral	Stylasteridae	Stylasteridae	3	0.17
Transect_26	Pennatulacean	Pennatulacea	Pennatulacean	2	0.11
Transect_26	Pennatulacean	Pennatulidae	<i>Ptilosarcus gurneyi</i>	1	0.06
Transect_26	Soft Coral	Primnoidae	Primnoidae	42	2.41
Transect_26	Sponge	Demospongiae	Demospongiae	1	0.06
Transect_26	Sponge	Hexactinellida	Hexactinellida	30	1.72
Transect_27	Fish	Hexagrammidae	<i>Ophiodon elongatus</i>	1	0.05

Appendix Table C. – Continued.

Transect ID	General Taxon	Family	Scientific Name	Counts	Density (ind.*100 m <sup>-2</sup> )
Transect_27	Fish	Osteichthyes	Unid. Fish	20	0.95
Transect_27	Fish	Sebastidae	<i>Sebastes</i> sp.	48	2.28
Transect_27	Soft Coral	Primnoidae	Primnoidae	137	6.51
Transect_27	Sponge	Hexactinellida	Hexactinellida	67	3.18
Transect_28	Fish	Bathymasteridae	<i>Bathymaster signatus</i>	3	0.16
Transect_28	Fish	Bathymasteridae	Bathymasteridae	4	0.22
Transect_28	Fish	Hexagrammidae	Hexagrammidae	3	0.16
Transect_28	Fish	Osteichthyes	Unid. Fish	17	0.93
Transect_28	Fish	Sebastidae	<i>Sebastes</i> sp.	174	9.50
Transect_28	Hydrocoral	Stylasteridae	Stylasteridae	24	1.31
Transect_28	Soft Coral	Primnoidae	<i>Plumarella</i> sp.	3	0.16
Transect_28	Soft Coral	Primnoidae	Primnoidae	214	11.68
Transect_28	Sponge	Demospongiae	Demospongiae	1	0.05
Transect_28	Sponge	Hexactinellida	Hexactinellida	44	2.40