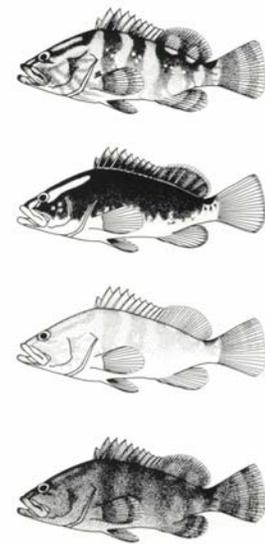


Information Circular No. 3:

The Belize Spawning Aggregation Working Group

Princess Margaret Drive, Belize City
Tel: 501-223-2623

Belize, Central America
email: species@btl.net



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Shown at right: Four color-phase changes of the Nassau Grouper, *Epinephelus striatus*.

Background

Formed in 2001, the main purpose of the Belize Spawning Aggregation Working Group is to monitor the status of remaining spawning sites of the Nassau grouper in Belizean waters. Working group members collect information at these sites from December through March, though not only for the Nassau grouper. As multiple species spawn at these sites throughout the year, the monitoring teams collect data for such species as well.

Update for 2005 Nassau Grouper Spawning Season

In the 2005 spawning season, the Group was able to collect data for six of the eleven permanently protected spawning sites. The following table compares the maximum Nassau grouper counts for those sites with data collected in the previous two seasons.

Maximum Nassau Grouper Counts: 2003-05

Site	# fish 2005	# fish 2004	# fish 2003
Rocky Point	200	200	N / A
Sandbore / Lighthouse	1,800	2,500	1,800
Caye Glory	350	1,000	1,000
Northeast Point / Glover's	2,240	1,700	2,400
Gladden Spit	360	450	250
Nicholas Caye	80	~50	52

The data collected also indicate that of the roughly 15,000 Nassau groupers observed in the spawning season, 31.71% were between 31 and 50 cm in length, while 54.77% were between 51 and 70cm. Only 11.65% were above 70 cm in length. In the 2004 season, analysis of the 58 Nassau groupers caught by licensed fishermen at Maugre Cay had shown that 10.34% were greater than 70cm in length, which is a similar proportion to fish observed in closed sites in 2005. Groupers generally reach sexual maturity between 30 and 80cm.

While the Nassau grouper figures remain low, with half of the spawning sites reporting decreases since the previous season, many years of data need to be collected before trends can be accurately determined. Fluctuation in numbers between years is normal for natural systems.

Multi-Species Aggregations

As noted earlier, while the work of the Belize Spawning Aggregation Working Group has centred on monitoring of the Nassau grouper, data on other species aggregations are also collected. In the 2005 season, data collected at Gladden Spit have revealed an increase in the number of species spawning there – from 18 in the 2004 season to 26 in the 2005 season. Other sites also support similar diversity of spawning species. Monitoring at Glover’s Reef in previous seasons had yielded counts of over 24 species.

Maximum Site Counts in 2005

Site	Species	Count	Date Observed
Rocky Point	Dog Snapper	1,000	29-Jan-05
Sandbore / Lighthouse	Black grouper	200	29-Jan-05
Caye Glory	Dog Snapper	450	2-Feb-05
NE Point / Glover’s	Jack crevalle	300	27-Jan-05
Gladden Spit	Dog Snapper	9,000	1-Mar-05 30-Mar-05
Nicholas Caye	Dog Snapper	200	4-Jan-05

As the table above indicates, with regard to abundance, at four of the six monitored sites, the Dog snapper (*Lutjanus jocu*) was the species with the highest maximum count. Approximately 9,000 of these were spotted in aggregations at Gladden Spit at the beginning and at the end of March. It is interesting to note that, other than Gladden Spit, the dog snapper spawning appeared to peak in late January / early February.

Public Awareness

Another feature of the past spawning season has been media coverage for awareness about spawning aggregations. Started in the 2004 season, a video ad outlining the importance of

protecting the aggregations has been aired regularly over the past few months, at select communities across the country. Future work might focus on how such public service announcements affect fishing practices at the open spawning sites.

Contact Us!

For further information about the Nassau Grouper or the Belize Spawning Aggregation Working Group, please feel free to contact:

Roberto Pott, Chairperson
 SPAG Working Group
 c/o Belize Audubon Society
 P.O. Box 1001
 Belize City, Belize
 Central America
 Tel: 501-223-5004
 Fax: 501-223-4985
 E-mail: marineparks@belizeaudubon.org

