

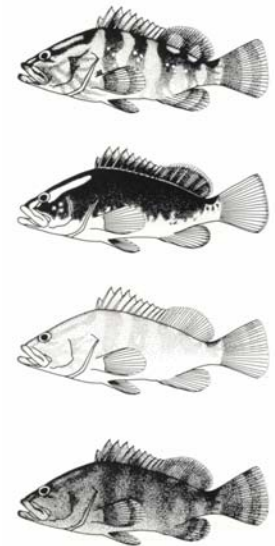
Information Circular No 4: The Belize Spawning Aggregation Working Group

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June 2006

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



2005 in Review

The Spawning Aggregation Working Group's goal for the period 2003 – 2008 is "To manage spawning aggregation sites and gather data that can be used to develop strategies to maintain these as viable sites for the protection, conservation and sustainable use of the fishery." In an effort to attain this goal the Group's objectives are:

- To manage, monitor and patrol spawning aggregation sites for the next five years, including monitoring the impact of use on the sites
- To involve the stakeholders in monitoring, research, and patrolling of spawning aggregation sites
- To create, house, and maintain a spawning aggregation database
- To analyze the data and provide recommendations for the conservation, protection and sustainable use of the sites
- To disseminate information for the education of all stakeholders
- To utilize the information to advocate for and build support for the management, conservation, protection and sustainable use of the spawning aggregation sites
- To support other initiatives that contribute to this general goal
- To promote alternatives for the traditional users of spawning aggregation sites.

The Working Group met six times during 2005. The main focus of the Group's work during the year was monitoring of sites, entering of monitoring data in a series of databases housed at

the CZMAI, strengthening dive safety measures, and developing the public awareness campaign.

In relation to dive safety, the Group developed an emergency plan and list of safety measures for dive teams, and keeps a register of up-to-date information on relevant details of each diver. It is promoting the upgrading of participating divers to the level of dive master. To this end, several dive team members from the Fisheries Department were upgraded to Advanced Open Water.

Efforts in the public awareness campaign included the production and distribution of the third newsletter published in September 2005, the distribution of posters on the life cycle of the Nassau grouper, a re-printing of the map and fishing regulations posters, and the airing of a TV 'spot' in January 2005 and December 2005.

A noteworthy event was the visit by Mr. Jose Juan Dominguez, Deputy Director of Marine Protected Areas in the Yucatan Peninsula, CONANP, Mexico who met with the Working Group in July on the invitation of the Group's Chairman. Mr. Dominguez is interested in establishing a similar spawning aggregation working group in Mexico. Members provided him with a brief history of the Group, how it has evolved over the past five years, and generally shared their experiences of participating in the Group.

Two important training workshops were also held in 2005. In May, Friends of Nature along with several Group members, held a training session on the spawning aggregation monitoring protocol for monitoring staff from Mexico, Honduras and

Belize. The training focused on the site at Gladden Spit. The Working Group also held a refresher course for 10 monitoring team members at the Glover's Reef Research Station in December.

Finally, the Fisheries Dept. produced a report in June 2005 that presents the results of the MBRS-funded, one-year (February 2004 – January 2005) monitoring of 4 sites: Rocky Pt., Sandbore, Caye Glory/Emily, and Nicholas Caye. The report shows the abundance, size classes, and seasonality for the many species that aggregate at these sites. The report concluded that each site should be monitored more intensely, validated as a true spawning site, and have its own management plan. Importantly, the report also recommends that a size limit be considered for Nassau groupers, the educational campaign on spawning aggregation sites be strengthened, and the protected sites remain closed to fishing.



Refresher course participants at Glover's Reef

Update for 2006 Nassau Grouper Spawning Season

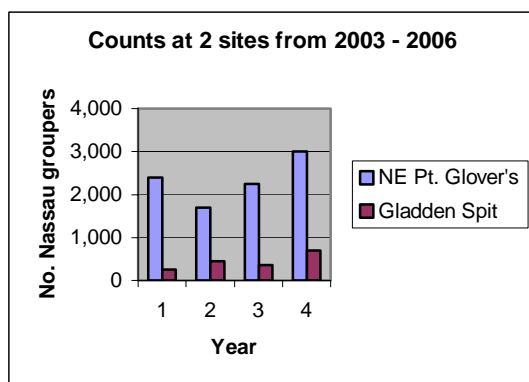
The following table shows the results of the highest counts of Nassau groupers at each of the seven priority sites monitored. Monitoring has been completed for four spawning seasons, since 2003/2004. A major aspect of this season's monitoring was the

observation of actual spawning of Nassau groupers in January 2006 at Northeast Pt, Glover's Reef.

Maximum Nassau Grouper Counts for 2006

Site	# fish 2006	# fish 2005	# fish 2004	# fish 2003
Rocky Point	0 ¹	200	200	0
Dog Flea Caye, Turneffe	2 ²	-	100 ³	1,500
Sandbore, Lighthouse	1,205 ⁴	1,800	2,500	1,800
Caye Glory	7 ⁵	350	1,000	1,000
NE Pt., Glover's	3,000	2,240	1,700	2,400
Gladden Spit	700	360	450	250
Nicholas Caye	48	80	~50	52

(¹ Only one dive; ² Site only monitored in February; ³ Site only monitored in January; ⁴ Probably missed peak spawning due to bad weather, ⁵ Different dive team used, precise location in question)



To date, NE Pt. Glover's Reef and Gladden Spit appear to have maintained, or possibly increased, numbers of spawning Nassau groupers. Fluctuations in natural systems, however, are normal and we need many more years of monitoring data before clear trends can be seen. In addition, peak spawning counts were possibly not recorded in some instances as a result of various factors, such as bad weather.

If you would like more information about the Nassau Grouper, the Belize Spawning Aggregation Committee, or anything mentioned in this newsletter, please contact Roberto Pott, Chairperson, Spawning Aggregation Working Group, at the Belize Audubon Society, 12 Fort Street, P.O. Box 1001, Belize City, Belize, Central America. Tel: (501) 223-5004/4987/4988, Fax: (501) 223-4985, E-mail: marineparks@belizeaudubon.org.

