

## **Nassau Grouper – an icon of healthy reefs!**

*(contributed by the Wildlife Conservation Society)*

Beneath blue green waves, snuggled in depths near the coral reef, a rare dance flickers to the surface. But the sight is seen only by a seasoned few who can read the signs illuminated by a full moon.

This is Nassau grouper breeding season, when these fish migrate from their home territories along the reef to specific sites to spawn, a critical stage in their life cycle.

Grouper only reproduce at these few times each year, in large aggregations that they form on promontories on the barrier reef and atolls. They carry out this great spectacle of nature, displaying different coloration based on mood and behaviour, a few days following the full moon, in the months of December to March.

Because the locations and the times of the year for these aggregations are well known to fishermen, it makes the Nassau grouper very vulnerable to over-fishing at the very moment it is reproducing and thus replenishing its populations.

This is precisely what happened in Belize. A nation-wide assessment conducted in 2001 revealed that most of the aggregation sites were fished out and only a few groupers were aggregating. For instance, at the famous site at Caye Glory (or Emily) where tens of thousands of Nassau groupers used to aggregate, a maximum of only 12 fish were observed in 2001.

To halt the decline, legislation was enacted in 2003 to protect eleven of the spawning aggregation sites as marine reserves, protecting them from being fished. In addition a four-month closed season, from December to March, was introduced to protect the species during its annual spawning period.

Later, in 2009, further legislation was introduced to include a size limit for the Nassau grouper. Only Nassau groupers that are at least 20 inches in length, and not more than 30 inches, can be caught and they all need to be landed whole. This measure aims at ensuring that each grouper can spawn at least once while at the same time protecting the largest groupers or ‘mega-spawners’, which produce the most (and the healthiest) eggs.

Referring to the protection of the spawning sites, veteran fisherman, Carlton “Jack” Young, Sr. from Placencia said “They will benefit. It might take ... a little while, but definitely they will benefit. If they fish them out, your grandson, or great-grandson, will only see a grouper in pictures, never see a live one or even be able to catch one ...”

Ten years have passed since the spawning sites were closed to fishing, and during this period many of the sites have been surveyed on an annual basis to monitor their recovery. Results show that recovery has been slow, but this was expected as the Nassau grouper is a long-lived species, only reaching sexual maturity at 7 years.

Nevertheless, several of the sites have maintained viable numbers of groupers and there are many anecdotal accounts of more and more juvenile Nassaus being observed. This provides hope that the spawning sites will rebound in time, enabling the grandchildren

and great-grandchildren of Jack Young and others to behold one of Belize's great natural wonders.

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To learn more about Nassau Groupers visit [www.spagbelize.org](http://www.spagbelize.org) or [www.scrfa.org](http://www.scrfa.org).