



Blue Wilderness Dive Expeditions

Web: <http://www.bluewilderness.co.za>

E-mail: info@bluewilderness.co.za

Cell: +27 (0) 83 3031515

Tel: +27 (0) 39 976 1107

Fax: +27 (0) 86 648 5072

Cc/Ck: 97/37377/23

Vat no.: 4430172041

Dear Brandon, Kobus and Jaco.,

First and foremost thank you all for making the trip possible and it was a great privilege to have met you all and wish you well in the future with your many projects.

This brief report will set out the four days spent at sea on the Africa Banks in more detail and will clarify the GPS points taken with a view to adding to the knowledge base of this phenomenal reef.

1. Background to Marine Area (including Africa Banks):

The marine eco-system, of which "Africa Banks" forms a part, is described as Africa's southernmost true coral reefs. This coast is referred to as the "Dune Coast" and the basis for the coral reef systems are 140 000 year old fossilized submerged dunes and beach rock covered by a thin veneer of coral. These reefs lack many of the characteristic features of more mature tropical coral reefs as they are constantly challenged by episodic events (such as cyclones) and sand movement, including sand burial. In this region (approximately 800km) corals of over 45 genera from 16 families are found with over 30 species of *Acropora* alone.

The fish diversity in this region is extensive with over 399 species in 74 families. Approximately 96% of this fish fauna has an Indo-Pacific distribution with 4% endemic to southern Africa.

Fish interact with the coral reef habitat in two distinct ways. The first is the direct relationship between the reef structure and the mainly smaller fish, which seek shelter in the coral recesses, among coral branches etc. The second, is the feeding interactions that occur between reef fish and hard corals, seaweeds, sponges as well as the sessile and mobile invertebrate fauna that live within the reef matrix. Based on feeding habits, fishes on coral reefs can be grouped into distinct guilds:

- Herbivorous fish make up nearly 25% of the coral reef fish fauna. These fish are the main consumers of primary productivity and can consume 50-100% of algal production. Examples of herbivorous fish are the surgeonfish, damselfish and parrotfish.

- Planktivorous fish are visible and prominent members of the reef fish fauna. Most fish are planktivorous in their larval stages but some retain this strategy into adulthood (e.g. fusiliers). During the day, diurnal planktivores swim along the reef edge where densities of plankton are highest. Nocturnal planktivorous fish, which spend the day sheltering in crevices, feed mainly on resident zooplankton such as mysid shrimps.
- Carnivores include benthic invertebrate predators, often the most numerous of all reef fish. They make up 30-60% of the fish fauna and include coral polyp feeders and predators of both sessile and mobile invertebrates. Fish that specialize in feeding on other fish (piscivores) are the top of the coral reef food chain (e.g. kingfish, rockcod).

Conclusion for Africa Banks:

Having broken down the basic reef and fish fauna above it was abundantly apparent to me during the course of my four days at sea that the reef system of Africa Banks is in excellent health and among the finest examples of the biome of which it is an integral part.

2. GPS Points of Interest: (all taken using WGS Cape and hddd mm.mmm)

Co-ordinate number:	GPS Position: Coordinates not visible - info only available to Mahangate owners	Brief description of location	Depth (allow for an approximately 3m tidal range)
St17apr09		Start point for reef swim. Located by Big Blue team prior to my arrival	15-17m
001		Southerly mark on ledge running from north to south with a seaward sand boundary. Good structure on the ledge with interesting coral growth.	15-25m
002		Southerly mark on ledge running from north to south with a seaward sand boundary. Good structure on the ledge with interesting coral growth.	15m-25m
003		Northerly mark on above ledge.	15-25m
004		Southern ledge with good structure and deep caves and overhangs. Very good fish life - specifically rockcod diversity awesome bohar snapper population. Core drift area is 200m long and 20m wide. There is another ledge to the shore side of this one, which is equally spectacular.	12-15m

005		As above	"
006		As above	"
007		As above	"
008		As above	"
009		As above	"
010		Shallow reef area with excellent structure.	8-12m
011		As above	"
012		As above	"
013		Shore facing ledge in an area of excellent structure shoreward of this mark. Southerly mark	10-12m
014		As above. Middle of area	"
015		As above.	"
016		As above. Northern point of ledge	"
017		Southernmost mark for ledge marked 4-9 above. Seaward and south of this was just sand. Shoreward and south was more reef but certainly not as spectacular as the rim of the shallow spine between points 4 to 9 above.	17m
018		Estuary mouth launch	
019		Boat mooring position in estuary channel	
020		Outside mark of southern ledge centered on 9 above	17m
021		Inside ledge of area centered on 9 above. Good reef structure and shallow.	8-13m
022		As above	"
023		Outside of sand ledge (inside of ledge is 13-16). Broken sea face.	15-17m
024		Break in reef shelf from the very shallow crown area facing to sea with big shoals of humpback snapper, blue banded snapper etc.	8-12m

025		As above	"
026		Crowned coral (i.d. pending) patch. Small area of crowned coral. The coral has colonized a rocky outcrop and provides refuge for chocolate dips and palette surgeons among others. A very unique opportunity.	8-12m
027		As above	"
028		As above	"
029		As above	"
030		As above	"
031		As above	"
032		As for waypoint 002 and 003 above	
033		Sand patch surrounded by caves and rocky outcrops. The northern access to the patch has a big rocky overhang and large shoals of snapper and fusiliers.	13-17m
034		As above	"
035		As above	"
036		As for 24 above	8-12m
037		As for 24 above	"
038		As for 24 above	"
039		As for 24 above	"
040		Small rock patch with large shoals of game fish feeding on the large shoals of baitfish covering the location.	11m
041		As above	

3. Of Interest:

- a. **Fish tag no.: A 134655:** A giant kingfish was shot by the team at position 009 on the Africa Banks above at 09h50 on the 17th April 2009. The

fish was tagged on the 25-mile reef (north of the Bazaruto Archipelago) on the 28th October 2008. The fish had traveled 194 km after being at liberty for a total of 171 days. The catch measurement in October 2008 was 1040mm. It was approximately the same length at capture on the Africa Banks.

b. **Comments:**

Mahangate is certainly the gateway to the Africa Banks. The Africa Banks is in turn a phenomenal dive site with huge potential. The fact that we were able to see tiger sharks, whitetip reef sharks; scalloped hammerhead sharks; grey reef sharks; tawny nurse sharks and a whale shark in just four days of diving as well as many other species of ray and to cap it all the rare and elusive bowmouth guitar shark speaks volumes for my statement on the potential of this dive site.

The fish life was prolific and encouragingly all of the predatory resident reef fish were abundant and some of the largest specimens of individual species that I have seen anywhere. The herbivorous species were also abundant but they generally don't suffer at the hands of fishing. My point being that the Africa Banks has not been affected by extractive use of any kind.

As for the corals and other reef life it was abundant and the sandstone base was well colonized. There were many places where you could spend a whole dive without moving and observe the coral and its community interacting. There are places here that will excite the coral fundi's and macro specialists alike.

4. Conclusion

All in all an exceptional destination with phenomenal animal and reef diversity that can cater for all qualifications, skill and interest levels.

Kind regards
Mark Addison