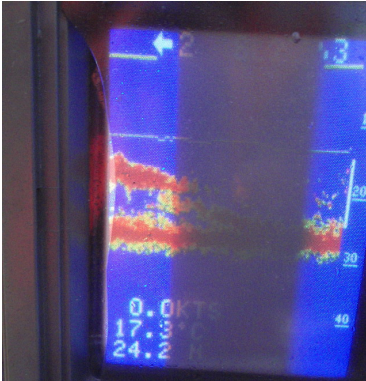


## Eating Our Science

We're back on the water again, and it's amazing how fresh the view of the Mzimvubu Valley looks after a few days in the bush of the NW Province. It was a wonderful day with a warm start to the morning and plenty of bird activity visible once we'd cleared the small surf. Whilst still near the Mzimvubu Mouth the water temperature was a very cool 17 °C, which is ideal. Moving further away from shore, about 3 km, the water temperature rose to 18.4 °C, which is still ideal for sardine to occupy. On the fish finder there were streams of fish moving past, mostly near the sea bed at between 35 and 55 m depths.



So far as the activity went, there were lots of birds diving, and plenty of common dolphins spread widely throughout the area with lots of spread out feeding. These predators did not, regrettably, trap the fish into a stationary bait ball, so it was not possible for us to deploy a tag. Interestingly, at no stage today did we notice any oil slicks or smell sardine oil typical of recent sardine predation. Whilst fishing with lures, for scientific purposes, the majority of fish coming out were west coast roundherring (*Etrumeus whiteheadi*), with some horse mackerel (*Trachurus trachurus*). West coast roundherring are typically found in cool water across the Agulhas Bank, whereas their close cousins, the east coast roundherring (*E. teres*), have a more tropical distribution. Both of these species have blood vessels in their ocular sockets that rupture when they are caught, hence their common name, red-eye. It is interesting that we have the west coast roundherring when temperatures are so cool.



So, we have noticed that over the past few years there seem to be more and more roundherring on the sardine run. Sometimes there appears to be a lot of roundherring in the water, but very little feeding activity. We're wondering whether these fish have less dietary value compared with sardine (hence the lack of oil in the water following predation). To this end, we're collecting samples of these fish to determine their calorific value (when we get back to Durban). In the meantime, we're determining just how delicious they are as Joy fries them up with masala. As I sit here pecking away at my keyboard, I have a delicious little critter waiting to join his brothers in my stomach. Their flesh is lighter than sardine and without the heavy flavour. We're also measuring the length of each fish (uncooked), checking their sex and reproductive condition, and chopping out their otoliths (little bones

found in the back of the head) to produce growth length curves. Otoliths are like tree rings, in that you can age fish by counting the rings visible as they grow.



Above: Bryde's whale feeding during our stint here a couple of weeks ago. Photo courtesy of Rod Haestier.

There was not much activity in the water today throughout the coastline. Surprisingly, there has been no netting on the KZN coastline, despite the activity present on the north Wild Coast last week. Possibly the fish are spread out across the shelf. We'll have to hurry up and wait some more.

Happy running...