

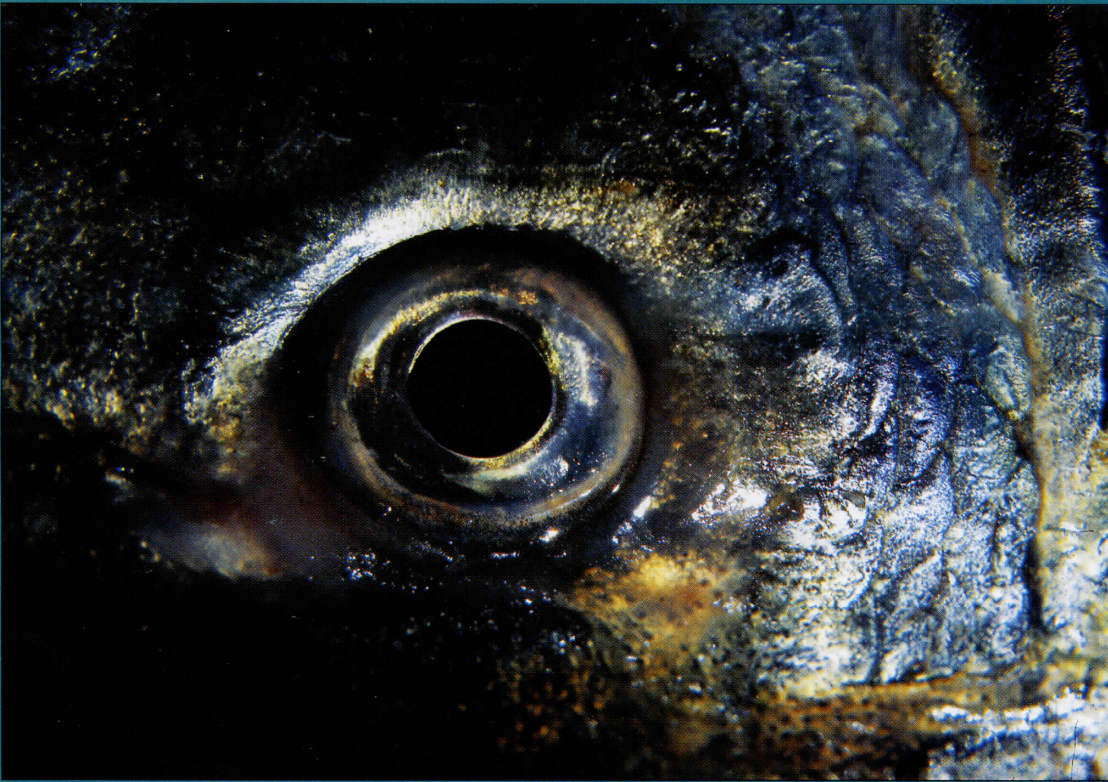


1.

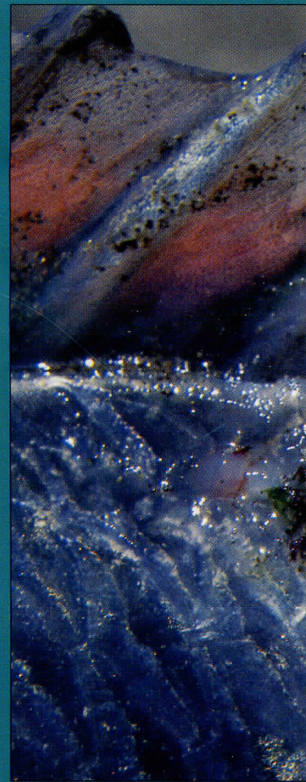


2.

Keeping Tabs on Fish in Namibia



3.



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1) The Linefish Research Section of the Ministry of Fisheries and Marine Resources has tagged over 35 000 fish caught along the Namibian coast. Initiated by Frikkie Botha, the project now continues under the guidance of Hannes Holtzhausen. So far 350 fish tagged fish have been recaptured, including one kob which has been caught three times. Some were caught at the same place where they were tagged and released, others a few kilometre south or north. Others were caught a few hundred kilometres away, including one or two which were caught more than a thousand kilometre to the south. This kob with the unusual scar on the back was tagged and released at Cape Fria in the Skeleton Park.

4) Seagrass has attached itself to the yellow plastic tag in the back of this steenbras, which was caught a second time. A company in Australia supplies the tags. Each tag has a number and the words "Namibia Fisheries" printed in black at the top of the yellow plastic tag. On recapturing, the fish is again measured, weighed and released. The recapturing allows scientists to determine the growth rate, the weight gain and the distance the fish had swum from the tagging spot.

5) A typical tagging trip starts at 07:00 and stops at 15:00 or 16:00. Fish which could not be released or which had been kept as biological samples, are cleaned, measured and weighed. The stomach content is examined and the otoliths removed. The liver and genitals of the steenbras are weighed and the stage of development recorded. Anglers participating in a tagging operation have to help with the research work. Some of the sampled fish become the evening meal. The rest are left on the beach for predators as no fish may be removed from a nature reserve, such as the Skeleton Coast Park or the Namib-Naukluft Park.

6) This tagged steenbras was kept for sampling. The flesh was cut away to see how the tag had been implanted (the t-shaped lower end of the yellow tag). The tissue had not rejected the foreign object and the tagging wound had healed. Data on recaptured fish indicate that steenbras do not move far from one area. Galjoen, in contrast, are the record holders for long distance swimming. A few had swum well over 2 000 km south from the spot where they had been tagged and released. One galjoen (*Dichistius capensis*) swam from Langstrand, between Walvis Bay and Swakopmund, to Trkosbaai in the Western Cape, South Africa. The 30-cm long fish had in only 101 days travelled at least 1 474 km south against the flow of the Benguela Current.

ibia

by Dirk Heinrich



2) A steenbras is measured from the tip of the mouth to the middle of the V-shaped tail. Hannes Holtzhausen, chief of the Linefish Section at the National Marine Information and Research Centre, has established that steenbras (*lithgnathus aureti*) off the Namibian coast are asexual until they reach a length of about 27 cm. During the next stage all steenbras of a size ranging between 27 and 35 cm are males. Between 35 and 42 cm all are hybrids, becoming females when they are longer than 42 cm!

3) The eye of a steenbras.

The author/photographer: Dirk Heinrich, born in Windhoek in 1958, became a press photographer at the Allgemeine Zeitung in 1980. Heinrich is a member of the Professional Photographers Society of South Africa. He has won two gold, one silver and one bronze medal, and a highly commended award over the last four years in the Fuji Profoto Awards, featuring some of the best South African and Namibian photography.

The Ministry of Environment and Tourism appointed Heinrich, who is known for his photo-articles on Namibian wildlife and conservation issues, as an honorary nature conservator in 1995.

