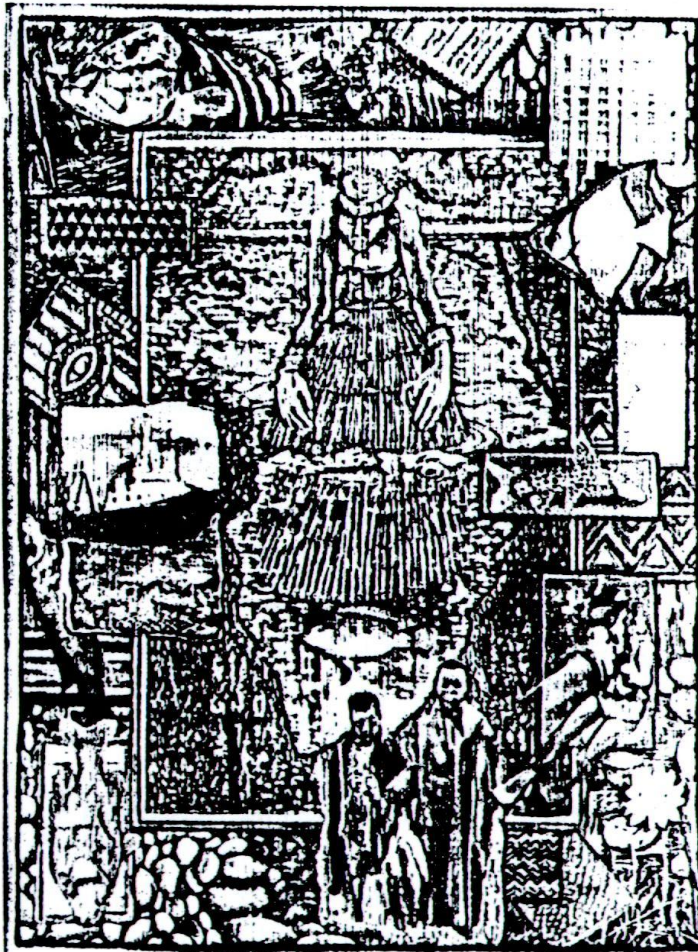


African Fishes and Fisheries
Diversity and Utilisation

Poissons et Pêches Africains
Diversité et Utilisation

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- Scott, L. & Hecht, T.: The effect of light wavelength on the growth rate, food conversion ratio and condition of juvenile spotted grunter *Pomadasys commersonnii*.
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- Babatunde, M.M., Oladimeji, A.A. & Balogun, J.K.: Acute toxicity of gramoxone (paraquat) to *Oreochromis niloticus* (Trewavas).
- Camara, S.: Reproduction et fécondité de quelques espèces de poissons du fleuve Kolené à Kolené en Basse-Guinée. [Reproduction and fertility of certain species of fish from the Kolené River at Kolené in Lower Guinea.]

Diadhlou, H.D.: La pêche des juvéniles de poissons par les filets fixes a crevettes en Casamance (Sénégal méridional). [The fishing of juvenile fish by means of permanent shrimp fishing nets in Casamance (southern Senegal).]

- Esteves, E., Gomes, T.M., Anibal, J., Teixeira, T., Jardim, J.E., Chicharro L. & Ferreira, L.: Marine plankton of the Bijagos Archipelago (Guinea-Bissau, West Africa) and its relationship with fish eggs and larvae.
- Fairweather, T.P., Bills, I.R. & Villet, M.H.: Aspects of the reproductive biology of the Tanganyikan cichlid *Lamprologus taparogramma* Bills and Ribbink 1997 (Pisces: Cichlidae).
- Focant, B., Chikou, A., Vandewalle, P. & Huriaux, F.: Temporal expression of muscle parvalbumin isoforms from three cat-fish species, *Clarias gariepinus* and *Heterobranchius longifilis* (Teleostei: Clariidae), and *Chrysichthys auratus* (Teleostei, Clariidae). [Expression temporelle des isoformes des parvalbumines de muscles de trois espèces de poissons-chats, *Clarias gariepinus* et *Heterobranchius longifilis* (Teleostei, Clariidae) et *Chrysichthys auratus* (Teleostei, Clariidae).]
- Goosen, A.J.J. & Smale, M.J.: Age and growth validation of the spotted gully shark, *Trakis megalopterus* (Triakidae), off southern Africa: an overview of progress.
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- Jardim, E., Santos, A., Incorn, I., Bucal, D., Paulo, I., Cassama, L., Tous, P. & Chaves, L.: Some biological parameters for several important species caught by the artisanal fleet of Guinea-Bissau.
- Kaunda, E. & Hecht, T.: On the feeding biology of *Diropterus nyassensis* (Clariidae) of Lake Malawi.
- Kaunda-Arara, B. & Niba, M.J.: Length-weight relationship, condition and food of *Luljanus fulvillamma* (Forsk.) (Pisces: Luljanidae) from Kenyan inshore marine waters.
- Kaunzinger, I. & Kramer, B.: Reproduction and development of electric organ discharge in *Marcusenius macrolepidotus* from South Africa (Mormyridae: Peters, 1852).
- King, R.P. & Udo, M.T.: Ovarian morphogenesis, breeding cycle and fecundity of the mudskipper, *Periophthalmus barbarus* (Gobiidae) in Imo River estuary, Nigeria.
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First Author: Dudley, S F J
Presenter's Name: Dudley, S F J
Institution: Natal Sharks Board, South Africa
Sub-theme: Biology and Ecology
Type of presentation: Oral
Language: English

Overview of current research at the Natal Sharks Board, KwaZulu-Natal, South Africa

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A small research team conducting basic and applied research forms a component of the KwaZulu-Natal (KZN) shark control (beach protection) program. Captured sharks are dissected in the laboratory but live sharks are tagged and released. A study of the general biology and catch patterns of the ragged-tooth shark *Carcharias taurus* is in progress, forming the ninth in a series on the 14 species commonly caught in the shark nets. A slow-moving shark, it is seasonally abundant on several inshore reefs along the KZN coast. Its behaviour has made it possible to tag free-swimming specimens and to assess, through photographic mark-recapture, the effects of recreational diving on site fidelity. Ages of white sharks *Carcharodon carcharias* (128-373 cm PCL) from the east coast of South Africa were estimated. Von Bertalanffy parameters for the combined sexes were: $L(\text{inf}) = 544$ cm PCL, $k = 0.065$ yr⁻¹, $t(0) = -4.4$ yr. One shark injected with oxytetracycline (OTC) was recaptured after 942 days at liberty. The shark was tagged at 140 cm and 46 kg and grew by 69 cm and 104 kg. The OTC was visible in the vertebrae and there is evidence for annual growth ring deposition. In continuing experimentation baited lines show promise as alternatives to gillnets as a means of providing protection against shark attack. In the meantime, minor reductions in the size of shark net installations have begun to take place. The effect of acoustic dolphin deterrents (pingers) deployed on the shark nets is being investigated in an attempt at reducing incidental dolphin mortalities. Studies on the behaviour and group dynamics of humpback dolphins *Sousa chinensis* interacting with pingers are underway at Richards Bay. Pinger and acoustic reflector experiments targeting bottlenose dolphins *Tursiops truncatus* are being conducted on the KZN south coast.

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Institution: Universidade Algarve, Portugal
Sub-theme: Biology and Ecology
Type of presentation: Poster

Marine plankton of the Bijagós Archipelago (Guinea-Bissau, West Africa) and its relationship with fish eggs and larvae

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Results of the joint Guinean-Bissau (CIPA)/Portuguese (UCTRA) marine sciences survey in the Bijagós Archipelago (Guinea-Bissau, West Africa) carried out in May-June 1995 are presented here. Water surface temperature and salinity were measured in 15 stations with T-probe and refractometer. Nitrite, ammonia and phosphates concentrations were obtained from water samples collected at 1-m depth and analysed using a Hach DR/3 portable photometer. In nine of these stations phytoplankton was sampled with a Nansen bottle at 1-m depth and zooplankton was collected with a FAO conical net (0.37 x 1.60 m, 0.5 mm mesh size) towed 0.5 m below the surface at a constant velocity of 3 knots. The system had lower salinity (mean = 34.4 ppm ± 0.77 SD) and higher temperature (mean = 28.6 °C ± 2.02 SD) than surrounding open oceanic water. Nitrite, ammonia and phosphates concentration ranged between 0.05-0.47, 0.29 and 0.8-12.1 µmol/L, respectively. Phytoplankton abundance was greater in the periphery of the archipelago and its diel variation at Canogo station seemed more related to tidal influence than with hour of sampling. Malacostracans determined the general variability of the zooplankton community. Fish eggs and larvae represented less than 5.5% of total zooplankton abundance. A day-night rhythm of zooplankton abundance could be depicted from the diel sampling plan done at Canogo station. Integrated analysis of oceanographic data and the data collected did not permit us to establish inter-relationships among factors.