KZN Sharks Board

AS EARLY AS 1907 EFFORTS WERE MADE IN DURBAN TO PROTECT SWIMMERS FROM SHARK ATTACKS WHEN AN ENCLOSURE OF STEEL PIPES WITH VERTICAL STEEL GRIDS, WAS CONSTRUCTED. It washed away, but a spate of 21 shark attacks of which seven were fatal, between 1943 and 1951, triggered the City to adopt a system that had been successfully used in Australia of nets anchored seaward of the breaker zone.

In 1952 seven gill nets, each 130 m long, were laid along the Durban beachfront and no serious shark-inflicted injuries have occurred since at Durban's beaches.

Black December

There were no nets though in other holiday resorts north or south of Durban. So when a series of attacks between December 1957 (known as Black December) and Easter 1958 claimed the lives of five people in 107 days there was a public outcry and it led to an exodus of panic-stricken holidaymakers.

Fearing financial disaster, several coastal towns tried erecting physical barriers in the surf zone consisting of poles, wire and netting but these soon washed away. Depth-charging by a South African Navy frigate killed eight sharks but probably attracted more sharks to feed on dead fish.

The solution was an expansion of Durban's netting operations and in 1962 shark nets were installed at holiday resorts north and south of Durban. By March 1966 there were 125 beaches with nets.

Nets and Drumlines

Most of the nets are 214 m long and 6 m deep and secured by two 35 kg anchors; all have a stretched mesh of 51 cm. The nets are laid in two parallel rows approximately 400 m offshore.

A drumline consists of an anchored float from which a single baited hook is suspended. Most beaches are protected either by two nets or by one net and four drumlines.

Shark nets do not form a complete barrier and sharks can swim over, under or around the ends of the nets. Neither do drumlines form a physical barrier. Both reduce shark numbers in the vicinity lowering the probability of encounters between sharks and people at those beaches.

Net Reduction

In trying to protect swimmers there is a need to reduce the environmental impact of nets. Sharks, as apex predators, play an important role in regulating numbers of animals on which they feed. Nets also catch dolphins, rays and turtles amongst other sea life. The Sharks Board has worked for some time to find solutions to reduce the number of nets at beaches which include drumlines, a research project with the Endangered Wildlife Trust to determine the efficacy of dolphin deterrent devices and discretionary bathing. Discretionary bathing has enabled the Sharks Board to keep nets out of the water for as long as two months, minimising the chances of large-scale mortalities especially during the annual Sardine Run.

In a more recent project, the Sharks Board is investigating using its patented waveform in a shark repellent cable that would surround a bathing area with an electrical field. In 2010 physicists and