Snakebirds

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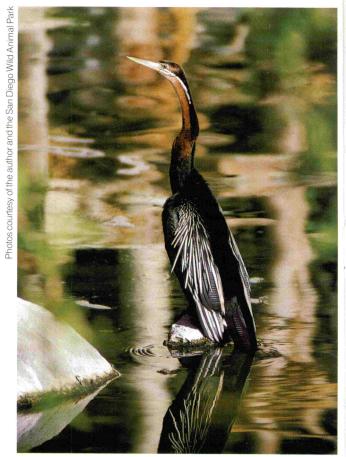
The family *Anhingidae* consist of the genus *Anhinga* and four species, *melanogaster*, *rufa*, *anhinga*, and *novaehollandiae*. Distributed worldwide in tropical and subtropical regions inhabiting freshwater lakes, rivers, marshlands and occasionally in coastal lagoons. *Continued on page 37* 



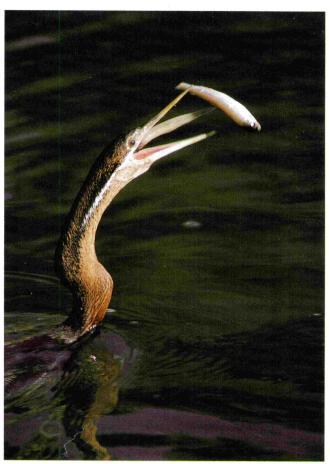
African darter basking in the sunshine drying of its plumage.



African darter swims with most of its body submerged which aids in its diving.



A male African darter resting on a partially submerged rock.



An African darter is ingesting two small fish he has captured.

At a distance darters resemble cormorants with some authorities classifying them under *Phalacrocoracidae*, however, closer examination shows numerous morphological and behavioral differences. Unlike cormorants, the bill of the darter is pointed and long with serrated edges ideal for spearing and grasping prey. The neck is "S" shaped with a unique hinge mechanism at the eighth vertebra allowing the bill to be thrust out at accelerated speed.

Effortlessly propelled by large webbed feet, the entire body may be submerged except for the long neck and head. At first glance one might think of an aquatic snake, hence the synonym of "snakebird." Voluntarily controlled air sacs and heavy bones allow it to swim submerged for several minutes while snaring food or escaping from predators.

Emerging from the water, darters must sun themselves for a period of time to dry their feathers. This is usually on a log or rock, wings held out from their body with the tail spread in the shape of a modified fan to shorten the drving time. Unlike waterfowl, their plumage is easily saturated with water. A flightless period occurs annually as primaries molt simultaneously in the fashion of some species of waterfowl. During this flightless time the birds stay even closer to a body of water for sanctuary and roost on branches which are easy to ascend. Cumbersome on land, darters are remarkable fliers, soaring to great heights while riding thermals or gliding above the water's surface.

Though they may roost in aggregations up to 100 with cormorants, egrets, herons, and spoonbills, darters choose solitary foraging primarily on varieties of fish, frogs, and aquatic arthropods.

To enhance game capture, the mandibles can be held agape doubling the point of attack. This has been documented by observations of fish having twin holes in their flank. The speared prey is taken to the surface, tossed in the air and consumed head first.

The nesting habits of *Anhingidae* are well documented. Males may choose a

historical site or select a new location. Females arrive later to choose a mate. After a pair bond has been established through a series of head bobbings and vocalizations, the nest is completed, made of loosely woven sticks lined with finer twigs and reeds. Nests can be built close to the ground or in trees up to six meters in height proximate to the water.

Copulation occurs on the nest, the hen crouching with head outstretched, the male mounting, wings partly spread, grasping her bill or a nearby twig for stability. Mating may continue early into incubation.

The pale blue or green elliptical eggs, measuring 46 to 60 cm by 31 to 41 cm, can number up to six in a clutch, four being the average, and are laid at twoday intervals.

Both parents share in the role of incubation which lasts from 25 to 28 days. Upon hatching, the naked, altricial chicks are fed predigested food dribbled from the bill of either parent and brooded continuously. On hotter days the parents stand over the chicks, wings spread, to provide shade. In a short time the young are covered with the white down which later turns a buff brown. As they develop, the young can be observed inserting their entire head into the gaping mouth of the parents to retrieve food. At 4 to 6 weeks, they are well developed, though not completely independent, and fledge at 6 to 8 weeks.

Zoological institutions, as well as private aviculturists, have limited experience working with the genus. I feel the reasons are two-fold. Zoos in general have limited waterways, traditionally exhibiting the more colorful species of waterfowl such as swans. Private aviculture deals primarily in birds whose diets consist of seeds and fruits, and they find feeding live or frozen fish cost-prohibitive. Lacking a demand, animal dealers have limited motivation to import. Recently A. rufa of Africa (at this writing the only ones in this country) and A. anhinga of the southeastern United States have been displayed at the San Diego Wild Animal Park.

