## Parental carrying of young by Goosanders

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Johnsgard and Kear (1968) have reviewed the subject of waterfowl carrying their young. They concluded that carrying of young on the back is well documented for some species, though uncommon in many others, and that the possibility of carrying young in the beak or in other ways should not be dismissed.

The following observations were made in Inverness County, Nova Scotia, Canada. On 26th June 1961, on the NE. in Inverness Margaree River above Portree, I saw a female Goosander Mergus merganser with five small young swimming upstream. A few minutes later the female reappeared drifting downriver with the entire brood on her back. On 8th July 1961, a female with eight small young was alarmed near the mouth of Trout Brook. As she led the brood out on Lake Ainslie, through waves 20-30 cm. high, at least three of the young ran up on to her back. One of nine small young in a brood watched on the delta of SW. Mabou River on 2nd June 1966 rode on the back of the parent for a few minutes. In all these observations the young were very small, only a few days out of the nest, as were those watched by Nuttall (in Baird, Brewer and Ridgway 1884)—'not larger than the egg of a Goose'.

Goosanders are hole-nesting birds. Their young hatch in a confined space, usually within a tree trunk, and cannot wander around as can young of groundnesting species. They can, however, climb on to the back of the parent. I have twice seen downy young of Buffleheads *Bucephala albeola* sitting on the back of a brooding female in a tree hole, in British Columbia. It is plausible that many young Goosanders have had similar experiences before they left the nest. However, it is very unlikely that young of tree-nesting ducks could routinely be carried from the nest on the back of the parent, since the latter often has to wriggle through a small aperture on leaving.

Young Goosanders go ashore very willingly. The brood watched in 1966 was being led across the delta by the female. The young ran across tiny grassy islets around which the female swam. When she paused near such islets, the young at once went ashore. It is possible that this brood had just been brought down river and were thus unusually tired. But Goosanders continue to rest on shore at all ages, and their reaction when alarmed is to hide on shore, at least until they are large enough to be confident of escaping by scampering across the water or by flying.

Young of the typically tree-nesting ducks would also be equipped for climbing in order to leave the nest. It seems obvious that to such a recently hatched duckling, a swimming female represents a familiar perch in the context of a floating island. The female can only accommodate a few members of the brood, and while the young are very small.

Johnsgard and Kear (1968) regard the advantages of parental carrying of young as self-evident, provided that the entire brood can be accommodated. But most ducks of the tribes Dendrocygnini, Anatini, Mergini, Cairinini (especially Aix), and Oxyurini typically lay clutches of seven to 12 or more eggs. It is unlikely that even seven newly hatched young of these species could find secure riding positions on a single female, which may partly explain why selection for this trait has not occurred.

## References

BAIRD, S. F., T. M. BREWER and R. RIDGWAY. 1884. The Water Birds of North America. Vol. 2. Boston: Little, Brown & Co.

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