

## NASAL SADDLES FOR PACIFIC BLACK DUCK *Anas superciliosa* AND AUSTRAL TEAL

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Nasal saddles are commonly used to identify individual free-flying ducks (Sugden and Poston 1968; Doty and Greenwood 1974; Lokemoen and Sharp 1985). A suitable saddle has been developed for the Pacific Black Duck, *Anas superciliosa*, by the New Zealand Wildlife Service. The saddles are made of polyvinyl chloride plastic, pre-cut to the required shape and size and held in place through the nares by a self-locking plastic pin.

These saddles can be made-up in several colours and have been used with numbers and symbols painted on their surfaces. To avoid any problems caused by paints flaking or wearing off (see Doty and Greenwood 1974), we adopted a binary coding system by nicking the edge of the saddle and repeating the code bilaterally. We used five positions giving a total of 32 numbers for each colour (see Fig. 1a and 2). Using a telescope at magnifications of more than x25 the saddles can be identified up to 150 m away without difficulty.

In the Grey Teal, *Anas gibberifrons*, and the Chestnut Teal, *A. castanea* the bill is very much smaller and more delicate than that of the Pacific Black Duck. The narial opening is narrow and the nasal bridge is weak. In our opinion no satisfactory saddle was available for marking free-flying teal.

We marked Grey and Chestnut Teal with a saddle modelled on that used by us for the Pacific Black Duck (see Fig. 1b and 3). A major innovation was the use of mono-filament nylon fishing line (50 lb breaking strain) to secure the saddle on the bill. The saddle was prepared by bonding a length of line through one hole in the saddle and sealing the knot with Selleys Super-Glue. When placed on the bill of the duck,

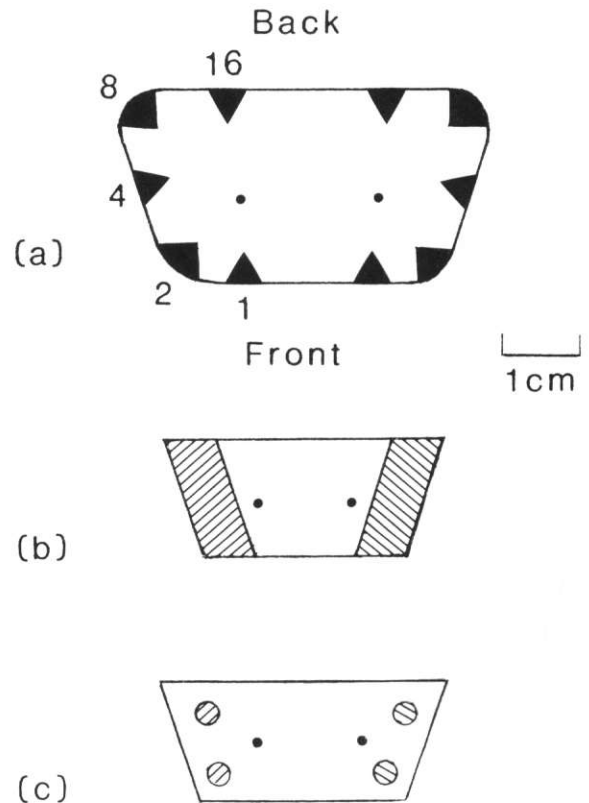


Figure 1. Details of nasal saddles.  
(a) Bilateral binary code for Pacific Black Duck saddles.  
(b) Austral teal saddle showing contrasting strips each side.  
(c) Austral teal saddle showing contrasting discs inserted into punched holes.

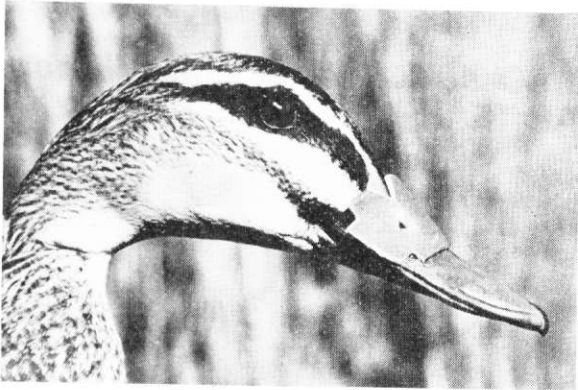


Figure 2. Pacific Black Duck with saddle; note identifying notches along edge.

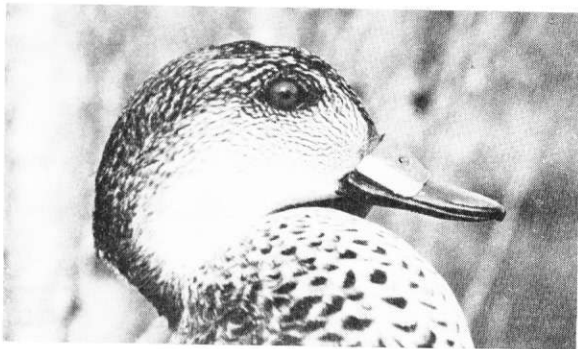


Figure 3. Grey Teal with saddle; note contrasting strip along edge.

the end of the line (cut obliquely to form a point) was passed through the nares and knotted on the outside of the saddle. The knot was tightened with the help of tweezers to abut the saddle, and then sealed with Super-Glue. To improve the fit of the saddle its back edge was chamfered on the underside. As with Black Duck, notches can be used to number the saddles, but are rather more difficult to identify. To increase the number of identifiable saddles we bonded plastics to form colour combinations. One method has been to trim the saddle and add contrasting edges both sides, below the position of the fastening pin (Fig. 1b). A second method has been to punch holes on either side of the saddle and insert discs of different colours (Fig. 1c). Again Super-Glue has proved to be an excellent bonding agent. Teal marked by either method could be individually identified with ease up to 150 m away.

Our experience with nasal saddles show a retention rate than that of Lokemoen and Sharp (1985). This may be due to the use of plastic retaining pins rather than stainless steel pins.

We have observed individuals carrying saddles for more than three years. Many of the marked ducks bred and reared young successfully and many have been recaptured on numerous occasions. Two ducks, a Pacific Black Duck and a Grey Teal, were caught and saddled on the second and seventh day of incubation respectively. In both instances the ducks successfully raised their broods.

No particular difficulties have occurred with these saddles. No signs of discomfort or damage to the bill have been observed and we have not found ectoparasites harboured by the saddles. The nasal bridge of the Teal is weak and the saddle can rip out if it becomes snared in the mesh of a trap or hand-net. However, on the few occasions this has happened breakage of the bridge did not disable the bird.

Initially we tried patagial wing-tags similar to those developed by Rowley and Saunders (1980). We experienced difficulty in positioning the tag in such a way that it was visible while the bird was at rest on land or water because in ducks the forewing is so well covered by flank and breast feathers.

#### ACKNOWLEDGEMENTS

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