

from those of the other three islands collectively. The type locality of *Brachyurus steerii* Sharpe is Dumalon, Mindanao. The unnamed race may be called:

Pitta steerii coelestis, subsp. nov.

Type: American Museum of Natural History no. 554153, adult male, collected at Bonga, Samar, Philippine Islands, 3rd July 1896, by J. Whitehead (collector's no. B754).

Characters: Differs from *P. s. steerii* of Mindanao in having all blues (underparts, wing coverts, rump) purer, less turquoise (greenish). This is best compared on the rump and wing coverts in many specimens, as the underparts are more subject to wear and discoloration, but is obvious when clean, freshly moulted specimens are compared. In addition, the dorsum of *coelestis* is of a distinctly darker and bluer (less yellow) green.

Range: The Philippine islands of Samar, Leyte, and Bohol.

Acknowledgments: This note is an outgrowth of a study of the birds of Leyte, supported by a grant from the Frank M. Chapman Memorial Fund of the American Museum of Natural History. I am grateful to the authorities of that institution, and those of the Field Museum of Natural History, Chicago, and the Peabody Museum of Natural History, Yale University, for access to their collections.

Specimens examined: *P. s. steerii*, Mindanao, 10. *P. s. coelestis*, Leyte, 1; Samar, 11; Bohol, 8.

A back-cross hybrid involving Cinnamon Teal and Northern Shoveler, and remarks on hybrid characters in the group of "Blue-winged Duck"

by James M. Harrison & Jeffery G. Harrison

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This individual is the result of a cross between, as the male parent, a hybrid Northern Shoveler, *Anas clypeata* Linnaeus, female, and Cinnamon Teal, *Anas cyanoptera*, Vieillot, male, and a female Northern Shoveler, so that the bird is two-thirds Shoveler and one-third Cinnamon Teal. The bird was bred by Aubrey Buxton by design at the Stansted Wildlife Park in 1967, dying when a year old on 12th May 1968. It is now in the Harrison Zoological Museum collections, and is illustrated as Plate 1.

The overall appearance of this remarkable specimen is predominantly Shoveler, and in fact it bears so close a resemblance to the New Zealand Shoveler, *A. rhynchosotis variegata* (Gould), as to be almost indistinguishable.

Description—Upper parts: from the root of the neck to the upper mantle, pale ash barred closely with sepia. Towards the mantle the ground colour becomes warmer by suffusion with pinkish-buff. The centre of the mantle is dark brown with paler indistinct narrow feather margins; the rump is dark brownish-sepia. The upper tail coverts are very dark sepia shot with greenish-blue reflections laterally. The central feathers are lighter and browner with narrow paler feather margins. The rectrices are ash-brown with broadish almost white margins, intermediate between those of the two species involved.

Under parts and flanks: ground colour of breast somewhat similar to, but

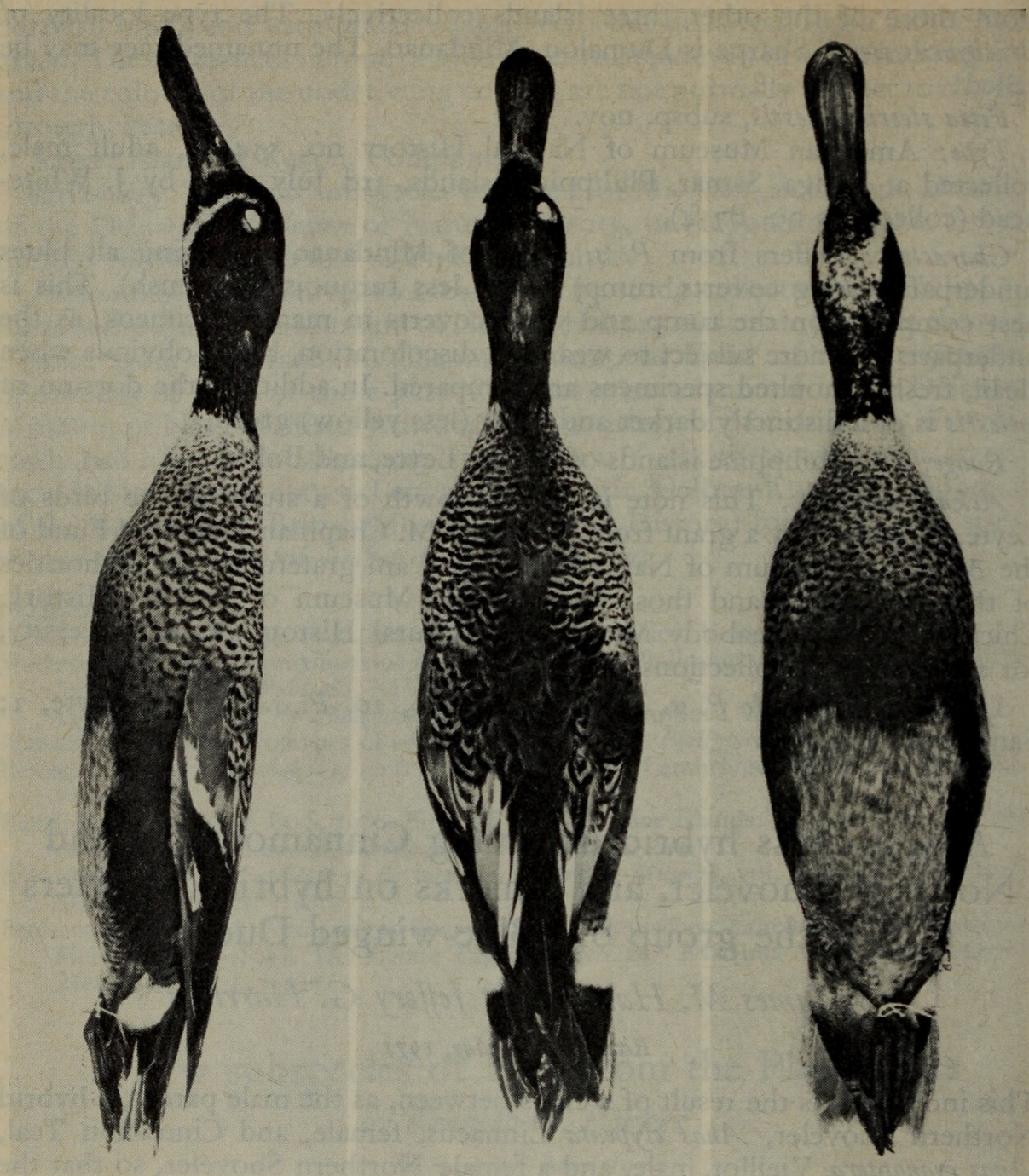


Plate 1. The hybrid: side, back and front views

warmer than, upper mantle and root of neck, with prominent central spotting merging into barring on either side. Lower breast and flanks rich chestnut, but towards root of tail some narrow sepia barring. Embracing the root of the tail on either side are white patches. The belly is still largely in juvenile dress, and is pale ash. Under tail coverts greyish-white, closely barred sepia, merging proximally into sooty-black with greyish-white speckling distally. Under surfaces of rectrices pale greyish-ash, outer vanes pale brownish-ash, sparsely speckled with palest sepia.

Wings: general pattern typical of Delacour's (1956: 159-189) group of "Blue-winged Duck". The wings of the hybrid and both parents are similar, although in the longest scapulars of *A. clypeata* the inner vanes are white and in *A. cyanoptera* cinnamon-brown. In the hybrid these are white. The short scapulars are pale cinnamon-brown with broad broken sepia bars.

Head and neck: these are sooty with well marked post-ocular greenish reflections extending down the sides of the neck to the well defined whitish

neck ring. There is a strongly marked white crescent on either side of the face, extending from in front of, and above, the eyes to meet below the sooty chin spot. This area is sparsely mottled with sepia. The iris was pale yellow-ochre, the tarsi and toes ochreous, the webs and nails dusky. The upper mandible was dull black, and the lower pale pinkish-flesh.

Measurements in millimetres:—

	<i>A. clypeata</i> ♂	Hybrid	<i>A. cyanoptera</i> ♂	<i>A. rhynchotis</i> ♂
Wing	*230-252	206	193	*235-250
Culmen:				
From feathers	*62-70	58.5	44	*60-72
From anterior of nostril	48.5	46.5	33	—
Width at nostrils	18	18	14	—
Width at widest point	30	25	16	—
Tarsus	*32-37	36	33	*34-42

* after Delacour (1956)

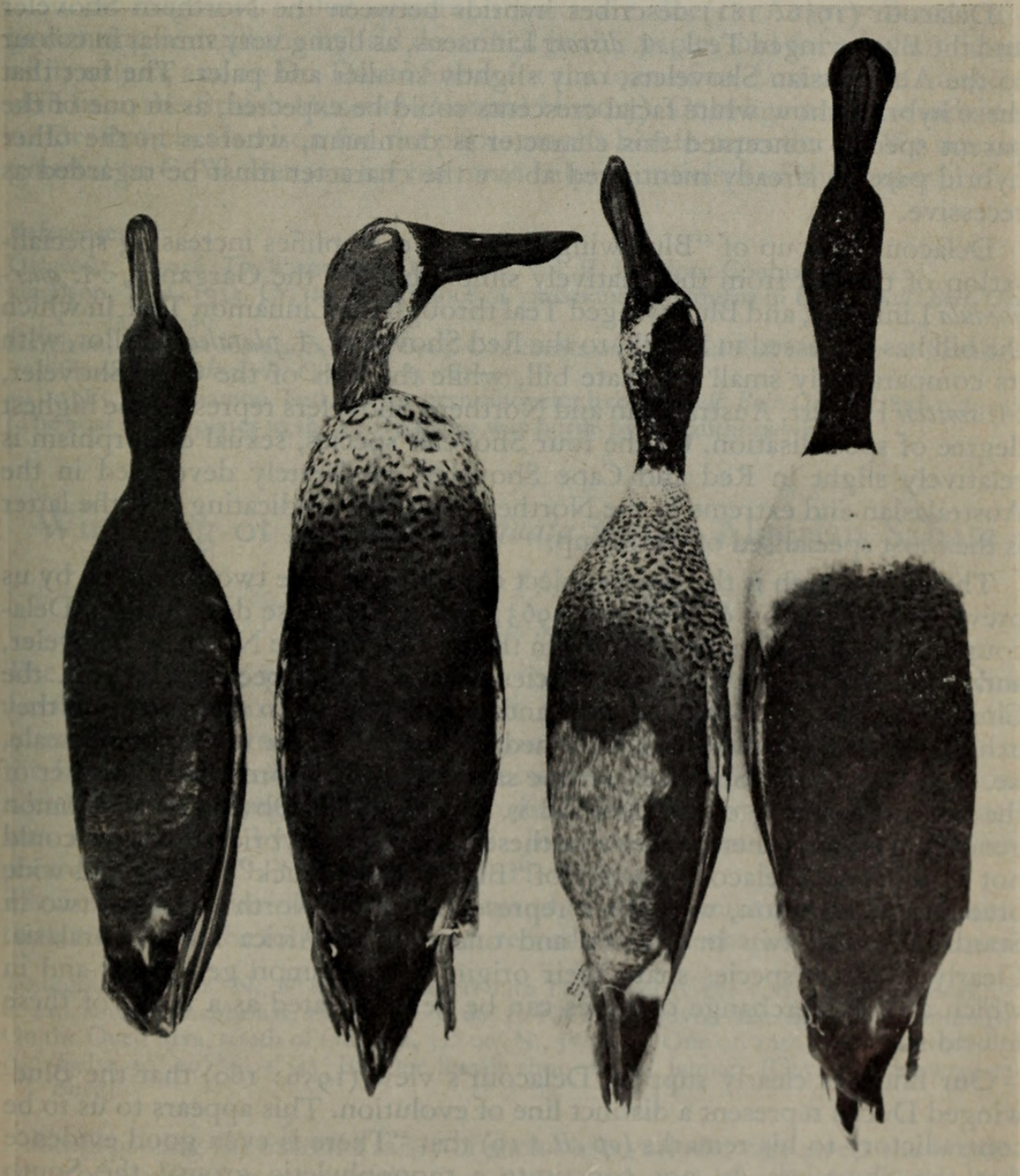


Plate 2. Cinnamon Teal: Australasian Shoveler; the hybrid; Northern Shoveler. Drakes

Discussion: The plumage of this hybrid does not appear to be intermediate with that of the parents, but exhibits a marked tendency towards characters found in another species, the Australasian Shoveler, *A. rhynchotis*, in that in the process of hybridisation white facial crescents have been exposed, an instance of heterophoric reverse mutation (Harrison 1953). The appearance of the present hybrid is very similar to the straight interspecific hybrid *A. cyanoptera* $\times$ *A. clypeata* (Harrison & Harrison 1965). The effect of a back-cross with *A. clypeata* in the present case was to accentuate the facial crescents and the amount of white on the breast (A. Buxton, pers. comm.). This same facial pattern has also been described by us (Harrison & Harrison 1963) in the case of a hybrid *A. platalea* $\times$ *A. clypeata*. In addition this hybrid, and the one described above, both show a distinct white neck ring, a constant character in drake Mallard, *A. platyrhynchos* Linnaeus. Furthermore, Delacour (1956: 159) notes that the downy young of the "Blue-winged Duck" group resemble very closely those of the Mallard and its near relatives.

Delacour (1956: 181) describes hybrids between the Northern Shoveler and the Blue-winged Teal, *A. discors* Linnaeus, as being very similar in colour to the Australasian Shovelers, only slightly smaller and paler. The fact that these hybrids show white facial crescents could be expected, as in one of the parent species concerned this character is dominant, whereas in the other hybrid parents already mentioned above the character must be regarded as recessive.

Delacour's group of "Blue-winged Duck" exemplifies increasing specialisation of the bill from the relatively simple bills of the Garganey, *A. querquedula* Linnaeus, and Blue-winged Teal through the Cinnamon Teal, in which the bill has increased in length, to the Red Shoveler, *A. platalea* Vieillot, with its comparatively small spatulate bill, while the bills of the Cape Shoveler, *A. smithii* Hartert, Australasian and Northern Shovelers represent the highest degree of specialisation. Of the four Shoveler species, sexual dimorphism is relatively slight in Red and Cape Shoveler, moderately developed in the Australasian and extreme in the Northern Shoveler, indicating that the latter is the most specialised of the group.

The cross which is the main subject of this paper, the two discussed by us previously (Harrison & Harrison 1963; 1965), and those described by Delacour (1956: 181), all have included in their parentage the Northern Shoveler, and one or other of the three species showing less specialisation, i.e. the Cinnamon Teal, Blue-winged Teal and Red Shoveler. In their progeny they exhibit characters towards an intermediate species on the evolutionary scale, i.e. the Australasian Shoveler. At the same time, the more basic character of the white neck ring of the Mallard is also exposed. Obviously a common gene-pool operates here, otherwise these unexpected hybrid characters could not be revealed. Delacour's group of "Blue-winged Duck" has a world-wide breeding distribution, with three representatives in North America, two in South America, two in Eurasia and one each in Africa and Australasia. Clearly all these species share their origin in a common gene pool and in which a free interchange of genes can be demonstrated as a result of these hybrid studies.

Our findings clearly support Delacour's view (1956: 160) that the Blue-winged Ducks represent a distinct line of evolution. This appears to us to be contradictory to his remarks (*op cit.*: 19) that "There is even good evidence that the Shovelers do not constitute a monophyletic group: the South American Red Shoveler (*platalea*) and the Cinnamon Teal (*cyanoptera*) on

one side; the Australian-New Zealand Shoveler (*rhynchotis*) and the Blue-winged Teal (*discors*) on the other, greatly resemble each other in plumage pattern, so nearly that the closest relationship must be assumed".

In our opinion it is questionable whether it is correct to assume a close relationship on the apparent presence or absence of a character (i.e. the white facial crescent), which we have now shown to be present but recessive, becoming a dominant recessive in hybrids involving Northern Shoveler, Red Shoveler and Cinnamon Teal.

Summary: A back-cross Northern Shoveler $\times$ Cinnamon Teal $\text{♂} \times$ Northern Shoveler ♀ is described, in which characters of the Australasian Shoveler are revealed. The presence of a white neck ring also suggests a relationship with Mallard. Other hybrids within Delacour's group of "Blue-winged Duck" are discussed, and in their characters strongly support the hypothesis that this group has evolved as a single line within the genus *Anas* and with affinities to the Mallard.

Acknowledgements: Our grateful thanks are due to Aubrey Buxton for presenting us with the hybrid described in this paper, and for relevant details of its origin, and to Dr. David Snow for the loan of an Australasian Shoveler skin from the British Museum (Natural History). Once again we are indebted to Dr. Pamela Harrison for the photographs herein reproduced. We are also grateful to C. W. Benson for his most helpful criticism of this paper.

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Wintering of *Saxicola torquata* in the Algerian Sahara

by E. D. H. Johnson

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The object of this paper is to clarify the wintering status of the Stonechat *Saxicola torquata* in the northern and central Algerian Sahara and in the adjacent south-eastern corner of Morocco. This is considered in relation to the few scattered references in the literature and in the light of observations which I made during the winters of 1968, 1969 and 1971. On all occasions I was accompanied by my wife G. F. Johnson and, in 1968 and 1969 respectively, by C. G. Headlam and J. H. English.

The literature: Heim de Balsac & Mayaud (1962), summarizing the literature to that date, list the following winter records of stonechats within the Sahara:

Touggourt, 33° 08' N., 6° 04' E. One on 14th December (Geyr von Schweppenbourg).
60 km. south of Laghouat, 33° 16' N., 3° 00' E. No details given (Laenen & Niethammer).
On the Oued Mya, south of Ouargla, 32° 00' N., 5° 16' E. One on 12th April (Hartert).
Ain Taiba, 30° 20' N., 5° 45' E. One female shot on 2nd January (Geyr von Schweppenbourg).

Emphasizing the extreme rarity of such observations, they stress the importance of Hartert's record on the Oued Mya, although Geyr's Ain Taiba bird receives no similar comment.



Harrison, J M and Harrison, J G. 1971. "A BACK CROSS HYBRID INVOLVING CINNAMON TEAL AND NORTHERN SHOVELER AND REMARKS ON HYBRID CHARACTERS IN THE GROUP OF BLUE-WINGED DUCK." *Bulletin of the British Ornithologists' Club* 91, 99–103.

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