

A RECONSIDERATION OF THE MASSACHUSETTS "COX'S SANDPIPER"

by Burt L. Monroe, Jr.

IN DECEMBER 1990, I HAD THE opportunity to visit John B. Cox, in Adelaide, South Australia, and discuss the current status of Cox's Sandpiper (*Calidris paramelanotos* Parker 1982), which is named for him. Cox was involved in the collection of all known specimens of Cox's Sandpiper and has done far more research on the subject than everyone else combined, not only analyzing the status of *paramelanotos* but also that of Cooper's Sandpiper (*C. cooperi*) (Baird 1858), known from the unique type taken in 1833 on Long Island, New York. Cox has recently published several articles on one or both taxa (Cox 1987, 1989a, 1989b, 1990a, 1990b).

The only specimens of Cox's Sandpiper to date have been collected in Australia: two on which the species description was based (one was definitely sexed as a male, the other uncertainly as a female), and two additional ones in 1989 and 1990 for biochemical studies (J.B. Cox, pers. comm.). Sightings of birds prior to 1981 that may have been this form cannot definitely be confirmed as such, but there have been numerous post-1980 sightings (some with photographs) from

Australia. All records from Australia, including the four specimens, fall between August and April and are of birds in largely or completely basic plumage. The breeding range is unknown, but no *Calidris* species is known to breed south of latitude 42° N. The full alternate and juvenal plumages are also unknown.

All four specimens and most photographs (with a few exceptions noted below) are intermediate in all characteristics between the Curlew Sandpiper (*C. ferruginea*) and the Pectoral Sandpiper (*C. melanotos*), including both plumage and measurements (Cox 1987, 1989a, 1990a). This contradicts the analyses of Buckley (1988), who suggested White-rumped Sandpiper (*C. fuscicollis*) rather than Curlew Sandpiper as one parent, and Stepanyan (1990), who suggested Ruff (*Philomachus pugnax*). Neither of these authors examined any of the specimens of Cox's Sandpiper. There are several characteristics of Cox's Sandpiper that are not intermediate between Pectoral Sandpiper and either of these two, especially the bill, and the likelihood of either as a parent is remote. It is hopeful that biochemical studies underway

will resolve the issue with respect not only to the hybrid origin but also to the correct parentage.

Cox (1989a, 1990a) also analyzed the type specimen of Cooper's Sandpiper based on detailed photographs taken by Richard Zusi at the National Museum of Natural History in Washington, and forwarded to Cox at his request. Although Cox was unable to view the type directly, I have examined it in Washington and confirm Cox's findings. The type of *cooperi* is intermediate in every respect except one between Curlew Sandpiper and Sharp-tailed Sandpiper (*C. acuminata*). This is particularly true in the structure of the dark markings on the underparts; the only parameter not intermediate is the wing length, which is 0.7 mm longer than the longest recorded for Sharp-tailed Sandpiper (Cox 1990a). Although biochemical analyses cannot be made, and thus we may never be certain of its parentage, I agree with Cox's conclusion that the likely parents of Cooper's Sandpiper are Curlew Sandpiper and Sharp-tailed Sandpiper (*C. ferruginea* and *C. acuminata*).

It is of further interest to note that Cox (1990b) has examined the photograph of a bird from Australia in 1981 (Lane *et al.* 1982) and determined that it is like *cooperi* in all respects (*i.e.*, that the authors were probably correct in 1982 in suggesting the parentage of *C. ferruginea* and *C. acuminata*). Moreover, several other Australian reports seem to favor Cooper's rather than Cox's sandpiper, the "exceptions" mentioned earlier (Cox 1990b).

The name Cox's Sandpiper was used in recent reports of a bird photographed and banded at Duxbury Beach, Plymouth County, Massachusetts, on September 15-21, 1987 (Kasprzyk *et al.* 1987; Vickery *et al.* 1987). This individual proved to be in juvenal plumage, a plumage unknown in either *parame-*

lanotos or *cooperi*. Examination of the photographs suggests that because a juvenile of either taxon is unknown, and because the authors did not distinguish the Massachusetts bird by definitive characters (e.g., did not describe the precise pattern of the uppertail coverts and the coloration of their primary shafts), the latter cannot be safely aligned with the type of either form (Cox 1990b).

Perhaps in no other recent case has the need for sacrificing an individual bird for a specimen been more strongly demonstrated. Not only will we never know exactly what it was (with reference to "*paramelanotos*" or "*cooperi*"), because the lack of a specimen precludes examination of morphological characters not shown by photography (even as carefully as this was done from an individual in the hand), but also determination of the precise parentage is not possible because of the lack of preserved tissue samples. Such analyses would no doubt have gone a long way towards establishing just what is happening in *Calidris* as well as providing science with its first juvenal specimen of any of the putative hybrids.

Although the matter of just what "Cox's Sandpiper" is will probably be resolved in the near future through the Australian biochemical studies now underway, I think it is important now to realize that the Massachusetts record cannot be definitively ascribed to anything. It certainly should not be further referenced as *paramelanotos*, because it has been established that it cannot definitively be assigned to that taxon, no matter what it proves to be. At the present time, only the taxon known as *cooperi* has been recorded in North America, whereas all verified Cox's Sandpiper (*C. paramelanotos*) records are from Australia. ■

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