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HYBRIDIZATION BETWEEN THE DUSKY GROUSE AND SHARP-TAILED GROUSE

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Hybridization between the Dusky Grouse (*Dendragapus obscurus*) and Sharp-tailed Grouse (*Tympanuchus phasianellus*) has been rarely documented. The only published record from the wild is of one collected at Osoyoos, British Columbia, in 1906 (Brooks 1907, Lincoln 1950). There is one record of this hybridization between captive birds (McCarthy 2006).

On 7 April 2013, Stephanie Cobbold and I found a suspected hybrid of this pairing at Hardware Ranch Wildlife Management Area, Cache County, Utah. The bird was running through the sagebrush, with its tail held high, showing bright white undertail coverts. The tail was the most obvious indication of hybrid parentage: the rectrices were similar to those of a Dusky Grouse, with black vanes tipped with gray; the undertail coverts approached the pure white of Sharp-tailed Grouse, but some of them had the distinct banding of a Dusky Grouse. The broad gray tips to the rectrices indicate the Dusky Grouse parent was of the nominate southern subspecies *D. o. obscurus*, resident in Utah, as the northern subspecies lack extensive gray tips to the rectrices. The pattern of the tail on the bird we observed closely matched that described by Brooks (1907:168), although he specified the outer rectrices as having "diminishing tips of grayish white" and the undertail coverts as "almost immaculate." Brooks' bird was found in the range of one of the northern subspecies of the Dusky Grouse, *D. o. richardsonii*, which has a smaller and less distinct band of gray at the end of the rectrices. The bird featured on this issue's back cover had an overall yellowish tone similar to that of a Sharp-tailed Grouse. The flanks were intermediate between the two parental species (unlike the bird described by Brooks, which he said looked like a Sharp-tailed Grouse below), the feathers having white tips but light mottled sandy bases, whereas the Dusky Grouse has gray bases. Body feathers hid most of the wing, but the tertials seemed closer to the white and sandy brown patterning of a Sharp-tailed Grouse. The outer vanes of the primaries were more heavily marked than in a Dusky Grouse but lacked the distinct banding or spotted pattern of a Sharp-tailed Grouse. The nape and upper back resembled those of a Dusky Grouse more than they did a Sharp-tailed Grouse, being mostly slaty gray. A small area of yellow skin, found in both species, was visible over the eye and was also mentioned in Brooks' description. The bill appeared intermediate in structure. The facial pattern was overall closer to that of a Sharp-tailed Grouse, with yellowish-brown auriculars bordered by indistinct white stripes. Although several of these features, such as white undertail coverts and more extensive white in the scapulars, could be explained instead by partial leucism in a pure Dusky Grouse, each is consistent also with hybrid Sharp-tailed Grouse parentage, and other traits support Sharp-tailed Grouse parentage to the exclusion of leucism, including the overall yellowish tone to the plumage and the bill structure. Because this bird was not captured, we have no detail about its size, but the hybrid reported by Brooks was intermediate in size between the parent species. Shortly after I took this photograph, the bird flushed, and flew off through the sagebrush. I am not aware of any attempts to relocate it.

A male Dusky Grouse has been seen displaying among a lek of Sharp-tailed Grouse about 40 km north of where I photographed this bird (Adam Brewerton and Frank Howe, Utah Division of Wildlife Resources, pers. comm.). That male Dusky Grouse attempted to copulate with a Sharp-tailed Grouse while the Sharp-tailed Grouse was

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caught in a trap. It seems likely that the bird featured on this issue's back cover was the product of a similar pairing, a male Dusky Grouse with a female Sharp-tailed Grouse, rather than the converse. Sharp-tailed Grouse mate in leks and Dusky Grouse do not, so a male Dusky at a lek might be able to copulate with a visiting female Sharp-tailed Grouse. It seems less likely that a female Dusky Grouse would be attracted to a Sharp-tailed Grouse lek.

Although hybridization within genera is more common than between genera, it is perhaps not that remarkable that these species would hybridize, given that *Den- dragapus* and *Tympanuchus* are each other's closest relatives (Gutiérrez et al. 2000, Drovetski 2002). The ranges of these two species overlap broadly from northern Utah and Colorado to Yukon and the Northwest Territories. Given the close relationship and extent of overlap of their ranges, it is perhaps surprising that there have not been more reports of this hybrid combination in the over 100 years since Brooks (1907) first described one. These species are generally segregated by habitat use, as the Sharp-tailed prefers open grassy sites for leks and shrubby areas for nesting and the Dusky is typically found in forests of conifers or mixed aspens and conifers, but Dusky Grouse do display at the edge of and in open areas, often near the top of a hill and in sagebrush. The scarcity of documented hybridization between these species could also be due to a failure to report such hybrids when found.

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Back cover: "Featured Photos" by © Ryan P. O'Donnell of Flagstaff, Arizona: (center) hybrid Dusky Grouse (*Dendragapus obscurus*) × Sharp-tailed Grouse (*Tympanuchus phasianellus*) at Hardware Ranch Wildlife Management Area, Cache Co., Utah, 7 April 2013, and © Paul Higgins of Roy, Utah: (top) Dusky Grouse in Weber Co., Utah, 10 March 2012, and (bottom) Sharp-tailed Grouse in Box Elder Co., Utah, 31 March 2012.