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100 YEARS AGO IN THE AOU

100 Years Ago in the American Ornithologists' Union

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As usual, many featured articles in the 1918 volume dealt with bird distributions. The most interesting of these was by Joseph Scattergood Dixon (1884–1952) on the breeding range of the Spoon-billed Sandpiper (*Calidris pygmaea*) in Siberia (*The Auk* 35:387–404). He started by stating that spoon-bills must be really rare in Alaska because natives had no idea what the bird was when shown a specimen. However, natives of Siberia recognized the bird immediately and called it by name. Next he went into great detail about the first three “records” from Alaska that led to the inclusion of this species in the AOU’s third edition of the *Check-list of North American Birds*. Based on the literature, all three were clearly collected in Siberia, but over time, references to these three birds strangely shifted to collection sites in Alaska. The first spoon-bills actually collected in Alaska were from late summer in 1914 by Fred Granville, a little known collector from California who was associated with the Cooper Ornithological Society.

Having established that spoon-bills actually breed in Siberia and not Alaska, Dixon went on about his encounters with breeding birds during summer of 1913 in Siberia. The males perform an elaborate nuptial dance and flight display, and Dixon provided a diagram of one that he witnessed. He and previous researchers believed that the male built the nest, incubated the eggs, and raised the young without any help from the female. That may not be entirely true, as females apparently do some incubation, but females do migrate first in fall, leaving the male to raise the young. The few specimens that Dixon and colleagues collected showed females to be larger than males, leading Dixon to suggest that maybe the spoon-bills were like phalaropes, but he saw no evidence of females courting males. Dixon’s presentation ended with a Literature Cited section, a real rarity 100 years ago in *The Auk*.

Hubert Lyman Clark (1870–1947), who was actually an authority on echinoderms at the Museum of Comparative Zoology (MCZ), published a number of papers on bird feather tracts (e.g., Clark 1906). He was examining a trogon specimen when he noticed that it lacked upper-tail coverts for the central two tail feathers. A search of the literature revealed nothing about upper-tail coverts, so he

decided to conduct a survey, devoting as much time as he could afford to the project. Apparently one cannot study upper-tail coverts without seriously damaging a study skin, but the MCZ had a large collection of birds stored in alcohol, which was perfect for counting feathers. Clark examined over 100 genera, and some birds had the same number of upper coverts as tail feathers, some had more, and some had less (*The Auk* 35:113–123). In general, waterbirds (“natatorial birds”) had more coverts than tail feathers, and landbirds like passerines had fewer. Clark was not sure if this information was useful or not, or if it had any phylogenetic importance. He closed with the suggestion that someone should tackle the under-tail coverts.

Frederic Hedge Kennard (1865–1937) recalled a conversation that occurred at a meeting of the Nuttall Ornithological Club on the “ferruginous suffusions that occur so frequency on the heads of some geese.” Why does this occur only in some species, and why is it usually associated with the head (Figure 1)? The phenomenon of stained heads appears in winter and during spring migration but does not occur during fall migration. Some birds are also stained on the lower body surfaces. During winter of 1916, Kennard visited Louisiana and was able to obtain feathers from geese for analysis. A colleague at the Massachusetts Institute of Technology determined that the feathers were tainted with ferric oxide. So the mystery was solved: birds feeding on the wintering grounds were eating submerged vegetation in iron-enriched soils and water, leading to the staining of their heads and lower bodies.

Chauncey Jeddie Hawkins (1875–1930) was a Congregational minister with a degree from the Divinity School at Yale University who preached at several churches, first in Massachusetts, then in Seattle, and finally in San Francisco. In a somewhat rambling essay, he presented his view on the function of bird song (*The Auk* 35:421–437). First he reviewed prevailing points of view, discounting Darwin’s view that it was sexual selection that drove male song. Alfred Russel Wallace also apparently rejected Darwin’s view and thought that natural selection was a better explanation: females would evolve to be inconspicuous while incubating, and males would evolve to be bright

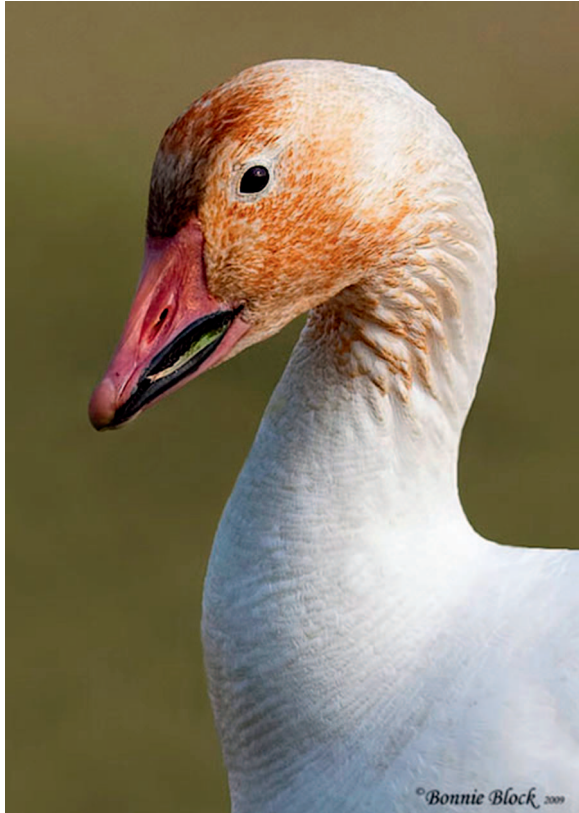


FIGURE 1. Snow Goose with stained head from feeding in iron-rich water and mud (used with the permission of Bonnie Block).

and singing so that the females would recognize them. Eventually, Hawkins came around to the writings of Karl Groos (1861–1946), who proposed that male singing was to overcome the coyness of female birds. Hawkins went to great length to strengthen his argument that male birds

had excess energy and that they performed dances and displays for females based on that. He stated, “I am confident that this theory is destined to find wider acceptance in the future than it has in the past, indeed, that a large part of the song of birds before the nesting season is for the purpose of breaking down the reluctance of the female rather than compelling her choice of a particular male.” Groos’s fame at the time was for his thoughts on play in children as preparing them for adult life. Much of his work is largely discounted today.

Hawkins went on to address song in male in the non-breeding season, when they had less energy and sang less energetic songs. In a surprising juxtaposition, he suggested that song and clucking in female birds early in the breeding season might actually make males select females that would be good mothers. In the end, Hawkins suggested that the internal environment of the birds might be important and that hormones might be involved. Hawkins felt compelled to write a second essay by the same name in *The Auk* (Hawkins 1922) after criticism of his 1918 piece, where he defended his “maleness of the males” explanation. In this second piece, he also presented his explanation about how subspecies arise with different dialects. As far as I can tell, these are the only 2 scientific articles that Hawkins produced. He is better remembered for the children’s books he wrote.

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