

THE NEED FOR EDUCATION AND COLLECTING

By ALLAN R. PHILLIPS

Deep ignorance and antiscientific attitudes are all too prevalent today, but the review by Edward H. Burttt, Jr. (*Bird-Banding*, 43-153, 1972) reflects these too stridently to pass over in silence. It reads (in full):

"30. Barn Swallow from Cornwallis Island, N.W.T. R.D. James and J. C. Barlow. 1970. *Can. Field-Nat.*, 84:181.—On 24 June 1969 an adult male Barn Swallow (*Hirundo rustica erythrogaster*), not in breeding condition, was collected at Resolute Bay, Cornwallis Island, N.W.T. This individual was 500 miles north of the species' breeding range and 150 miles north of any previous record for North America. Is it still necessary to kill a bird for species-identification, for a statistic, for one printed page?—Edward H. Burttt, Jr."

Any respected university Department of Zoology should have taught that scientists do *not* collect birds for these reasons and that collecting of waifs does not decimate species. As to the misleading minutiae: Dr. Barlow, a well known ornithologist, an Elective Member of the American Ornithologists' Union, and member of two A. O. U. Committees, is curator of the largest and most diversified bird collection in Canada. He is also our leading authority on vireos and their allies and thus he has no need of additional printed pages in his personal bibliography. Such concise notes keep scientists informed of novel "statistics" of bird distribution and of the availability of specimens for study. These solid, verifiable data are all the more important today, with the flood of highly dubious reports by those who think correct "species-identification" an unnecessary triviality not even worth the sacrifice of a hopelessly lost bird.

In cold fact, however, Burttt sets up a straw man to knock down. The bird was clearly stated to have been "collected . . . by Mr. John Geale. The bird was given to Mr. J. E. Mason of Toronto. . . ." Thus, neither collector had any interest in publishing; the authors collected nothing, but merely performed the curatorial courtesy of keeping their colleagues and the A. O. U. Check-list Committee informed. Obviously Burttt failed to read, or understand, even this short, clear note. Had he inquired, he would have learned that *the bird was found fluttering helplessly on the ground, and died almost immediately when picked up*. Should Geale and Mason have thrown it away?

More importantly, Burttt's protest against collecting stragglers is disturbing and dangerous. Presumably he would have them starve, in the interests of "conservation." Such thinking detracts

attention from the very *real* and urgent need to protect varied nesting habitats, both physically and chemically, and to prevent serious disturbance of *breeding* birds so that bird *species* may thrive. Intentionally or not, these protests and controversies serve as smoke-screens to aid the true enemies of conservation. All this should be too obvious to field ornithologists for elaboration here.

The scientific need for collection has been amply explained by such distinguished ornithologists as L. L. Snyder (1958) and Joseph Grinnell, who long ago pointed out that a properly labeled specimen is a permanent scientific *document* for qualified scientists to ponder and verify (or re-interpret)—and from many angles: seasonal, geographic, molt, abnormalities, age, and sex, as well as *taxonomic*.

It is this last point that anticollectors miss most completely. The taxonomic purpose of ornithologists in preserving specimens is *not* merely "species-identification," but population identification, to the best of our abilities at any time. *Hirundo* is a large genus; *H. rustica* itself contains at least eight subspecies, and further geographic variation might yet be found. Specimens can thus teach us the *origin* of the birds for all time. Resolute Bay, although a great distance from the ranges of Old World swallows, is also far from the usual range of the North American race, and there is considerable interchange of Old and New World birds in the Arctic, as most people know.

This specimen might prove vital if Barn Swallows should colonize the Arctic in the near future, by showing the racial origin of the very first known arrival. Let us not forget that as the Pleistocene recedes, northward expansions are now taking place steadily, and in some areas at a rapid rate (Phillips, 1968). Two races of swallow *might* conceivably meet somewhere far north of their present ranges, exactly as did two races of Boat-tailed Grackle, "*Cassidia*" *mexicanus* (Phillips, 1940, 1950; Phillips et al., 1964). Fortunately for science, ornithologists took specimens of the first grackles they found straggling into Arizona; these show just what actually happened in areas now densely populated, apparently chiefly by intermediates between subspecies of very different origins. Pleas against collecting in such cases certainly run counter to the increasing care, competence, and accuracy of bird-banders.

As a matter of fact, the study of subspecies is a parallel to banding. As Joe Marshall states (*in* Phillips et al., 1964: *x*), "races constitute whole populations which are 'marked' by their peculiarities of color, size, and proportions."

The present sentiment against collecting or other research requiring the sacrifice of animal lives is what gives this case importance. On the same page as Burt's review, for example, Kelso reviews a paper by P. V. Terentz urging systematists to forget intraspecific variability. And every ornithologist has his pet story of some modern "biologist," hopelessly ignorant both of the immense variability and complexity of life and of the methods used to study that variability. The widespread attitude expressed by Burt is demonstrably antiscientific; for science is a body of *proved* facts and the principles that can reasonably surely be deduced therefrom. Opposi-

tion to the harmless acquisition of demonstrable, verifiable knowledge has no place in scientific journals, too many of which are already contaminated by articles *far* less defensible morally.

Just what anticollectors really want is only occasionally admitted. Their reversed attitudes are clearly exposed, for example, by Alden (1969: 2): "Species collected in western Mexico but not confirmed by [his own] recent field work have not been included" in his lists. He does (Alden, 1964a, c, 1965), however, ask us to believe such "sight records" as White-eared Hummingbirds (*Hylochar isleucotis*) and Boat-billed Flycatchers (*Megarhynchus pitangua*) in northwestern Sinaloa; Green Parakeets (*Aratinga holochlora*), Black Swifts (*Cypseloides niger*), and Green Jays (*Cyanocorax yncas*) in southern Sinaloa; and in western Nayarit, Roadside Hawks (*Buteo magnirostris*), Glaucous-winged Gull (*Larus glaucescens*), Hairy Woodpeckers (*Dendrocopos villosus*), Purple Martins (*Progne subis*), Philadelphia Vireo (*Vireo philadelphicus*), Baltimore and Lichtenstein's orioles (*Icterus g. galbula* and *I. gularis*), Ruddy-breasted Seedeater (*Sporophila minuta*), and Rufous-sided Towhee (*Pipilo erythrophthalmus*). He even (1964b) expects us to credit the distinctive and sedentary Rose-breasted Thrush-Tanager (*Rhodinocichla rosea*) to Veracruz, far from any region it is otherwise thought to inhabit! In England, Alden's counterparts also ask us to accept innumerable dubious "sight records" while rejecting, on impossible grounds, perfectly valid specimens, as clearly demonstrated by Harrison (1968).

The opponent of collecting may feel species identification, distributions, etc., are unimportant, since all are given in A. O. U. (and other) Check-lists, from which they pass into field guides and popular works. But he forgets (1) the constant and accelerating changes in bird distributions (*cf.* for example Phillips, 1968), and (2) the vital fact that check-lists are firmly based on just the sort of note that Burt criticizes!

Surely possible eastward straying of Audubon's Warblers (*Dendroica coronata auduboni*), Bullock's Orioles (*Icterus galbula bullockii*), Arctic or Spotted towhees (*Pipilo erythrophthalmus arcticus*), and White-winged and Oregon juncos (*Junco hyemalis* subspp.) loses no significance when we consider these birds conspecific with eastern forms. Is the Ipswich Sparrow (*Passerculus sandwichensis princeps*) any less worthy of our concern when we consider that it has not yet diverged to the degree of a full species? Are we to lose and recover interest as the A. O. U. dictates? And why do ornithologists ignore the only western bird that actually invades the east in flocks? This, as long ago hinted by Griscom (1937: 121-125), is the Red Crossbill (*Loxia curvirostra*). Yet in 1952-53 in the New York area, "a number were found dead or dying, but few specimens were preserved" (Bull, 1964: 438)—despite the fact that three races were already reported from the region! As a matter of fact, Bull's may be an understatement; I cannot find *any* 1952-53 specimen! New York ornithologists displayed an extraordinary ignorance of, and lack of interest in, the most sensational of all bird movements!

The need for more collecting, even at the species level, may be sensed by thoughtful readers in many recent articles, even one in the same issue of *Bird-Banding*. Semipalmated and Western sandpipers, *Calidris* (or "*Ereunetes*") *pusillus* and *C. mauri*, are extremely difficult to distinguish even in alternate (nuptial) plumage, and impossible at other times unless carefully sexed and measured, in which case the Western is longer billed, *sex for sex*. Yet Page and Middleton (1972) never even mention *mauri*, either in their text or references. Might not careful segregation of species alter their considerable spreads of migration dates and weights of *pusillus* (p. 86, 88) and the marked eastward trend of its local migration (p. 92)?

Only judicious collecting *at all seasons* will give us reliable data on such problem species and on subspecies. This is all the more important in the case of out-of-season or out-of-habitat strays—see for example Phillips and Lanyon (1970) on late fall *Empidonax* flycatchers; Phillips et al. (1964) on desert lowlands stragglers of such mountain species as Mountain Chickadee (*Parus gambeli*), Brown Creeper (*Certhia familiaris*), Eastern Bluebird (*Sialia sialis*), Golden-crowned Kinglet (*Regulus satrapa*), and Red Crossbill, long erroneously thought to be "altitudinal" migrants or "wanderers"; and Rea (1970) on wintering (and Pacific coastal strays) of the Summer Tanager (*Piranga rubra*), which likewise are not "lingerers" of the race logically to be expected.

It is high time all of us took into account the many unresolved problems and the results of recent researches on the basic facts of bird distribution, migration, and straggling, as well as long-well-known facts about subspecies (for a brief survey of which see, for example, the symposium in *J. Ariz. Acad. Sci.*, 1, no. 1, 1959). Can we not have professors and students who show some awareness of the purposes of museum science and progress in knowledge gained through collecting? No science will long maintain high standards in the face of entrenched official stupidity and poor education. Nor will narrow, ill-informed professors produce knowledgeable students capable of advancing rather than opposing science.

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