THE EDWARD HARRIS COLLECTION OF BIRDS

BY PHILLIPS B. STREET

R ELATIVELY little has been written on the life of Edward Harris (1799-1863) in comparison with most other ornithologists of a hundred years ago. Until recently, the only intimate account that I was able to find was one in *Cassinia* for 1902 by George Morris, of Philadelphia, a great-nephew of Harris' friend, Dr. John Spencer. Many of Harris' letters and diaries were available to Morris, who mentions how important a part Harris played in the life of Audubon and in the ultimate success of his great undertaking of portraying the birds of America:

"... were the whole truth told of the life and deeds of Edward Harris, the ornithological world at least would learn that it owed him a deep debt of gratitude....

"It is true that in the fields of actual discovery his name is hardly known. It was as a friend and patron of scientific men that he made his influence felt—an influence exerted so quietly and modestly that its full force might easily be overlooked, especially at this late day. Of those who shared the friendships and reaped the bounty of Edward Harris, it is probable that no one was more deeply indebted to him than Audubon."

The most detailed account of Harris' life yet published has recently appeared (1947) in a paper of the Newcomen Society entitled "Edward Harris, Friend of Audubon," by Peter A. Brannon, of the Alabama State Department of Archives and History. William Ustick Harris, of Jackson, Alabama, a grandson of Edward Harris, has presented to the State of Alabama a collection of his grandfather's papers, journals, and relics, and it is from this material that Brannon prepared his interesting Harris biography.

My interest in Harris also stems from a collection—his bird collection—and a report of its discovery and contents is a necessary addition to the Harris story.

In October 1937, a Philadelphia contractor, Henry Makin, visited the office of my father, the late J. Fletcher Street, and, knowing my father's interest in birds, remarked that his parents had in their Moorestown, New Jersey, barn, stored in old boxes and trunks, a collection of birds which had once belonged to an Edward Harris. He said that Harris had given them to his father, together with several items of furniture, guns, and a mineral collection, in lieu of cash in settlement of a plumbing bill. The donor proved to be Edward Harris, 3rd, a son of the ornithologist.

My father journeyed to Moorestown and brought away twelve bushel baskets of birds, the skins varying in condition from good to exceedingly poor. The condition of many of the specimens was explained by the Makins. The birds were originally delivered in a large case of drawers; in due course Mrs. Makin decided the case would make a fine linen chest and demanded the removal of the skins. They were then placed in large packing boxes and an old trunk and removed to the loft of the barn. The capacities of the containers could not have been very generous, for Mr. Makin, Sr., advised my father that he had to press the birds down with his feet in order to close the lids. Then Henry Makin, growing up to young manhood and becoming interested in the collection of guns, decided to try them out, using the stuffed birdskins as targets . . . Some 400 identifiable skins remain, representing 228 species, including many headless birds, separate heads, wings, and feet. It is regrettable that so many labels are missing and so many skins partially or wholly destroyed that a complete account of the collection is impossible.

Harris apparently collected relatively few of the specimens himself. Except for those traceable to the Audubon Missouri River Expedition, of which Harris was a member, all but a few of those skins which bear labels can be attributed to Spencer Baird, to John K. Townsend's Pacific Coast Expedition, or to Auguste Lefevre, a French naturalist. There is not a single skin whose label indicates that it was taken in the vicinity of Harris' New Jersey home.

Upon his return from Europe in 1836, Audubon wrote to Harris from New York and asked Harris to aid him in procuring permission to portray the birds which Townsend and Nuttall had collected in the Rockies and along the Pacific Coast. As Audubon stated, the collection had been entrusted to the Academy of Natural Sciences of Philadelphia: it contained "about forty new species of birds, and its value cannot be described." Townsend was still in the far west, and hence the Academy would not allow Audubon to make off with and describe the new birds. Audubon's efforts to gain permission being unsuccessful, Harris made an offer of five hundred dollars for the purchase of the entire collection, but this too was rejected. At length Audubon went to Boston and consulted Thomas Nuttall. Then, through the influence of Nuttall, who understood Audubon's desire to include the new birds in his great work, it was arranged that a committee should publish the descriptions in the Academy's "Journal" under Townsend's name and that Audubon be allowed to purchase the duplicates to paint and publish in his Giant Folio. Finally Audubon purchased some ninety-odd skins (F. H. Herrick, 1917. "Audubon the Naturalist," vol. 2, p. 154). I have found three skins from the Columbia River with Townsend's original labels; others, unlabelled, may be properly attributed to the same journey, among them five drepanids from the Hawaiian Islands, including the rare Hemignathus lucidus hanapepe.

Two of the Townsend skins are Snowy Egrets, Leucophoyx thula, taken at Walla Walla, Columbia River, on July 3 and August 13, 1836.

Townsend, in his journal of this trip ("Narrative of a journey across the Rocky Mountains to the Columbia River," 1839), includes in the appendix a "Catalogue of Birds Found in the Territory of the Oregon" and fails to list the Snowy Egret. Gabrielson and Jewett (1940. "Birds of Oregon," p. 109) list the Snowy Egret as a "rare straggler." These two specimens, therefore, are important early Oregon records.

There is also an unlabelled male Hermit Warbler, *Dendroica occidentalis*, which I am prepared to claim as one of the two cotypes of the species. This to me is the prize find of the entire collection. I realize the hazard of attempting to prove an unlabelled skin to be a type, yet I feel that the facts warrant the assertion. The points which I submit in evidence are these:

1. Townsend collected but a single pair of Hermit Warblers. They were taken "in a pine forest on the Columbia River on the 28th of May, 1835" (Jour. Acad. Nat. Sci. Phila., 7, 1837:190).

2. There is no evidence that any of the specimens in the Harris collection from the Pacific Northwest are from any source other than the Townsend and Audubon Expeditions, and no D. occidentalis was taken on the latter.

3. The pair of Hermit Warblers shot by Townsend were among the birds given to Audubon to be figured in his Giant Folio and described in his Ornithological Biography (1839, vol. 5, p. 55), and the measurements given by Audubon in his description of that male compare with the measurements of mine, as follows:

	Harris Collection	Audubon's	Harris Collection	Audubon's
Wing	70.0 mm. or 2 9/12 in.	2 8/12 in.	Culmen 8.75 mm. or 4/12 in.	4/12 in.
Tail	45.5 mm. or 1 9/12 in.	1 9/12 in.	Tarsus 17.25 mm. or 8/12 in.	8/12 in.

4. Neither cotype is in the U. S. National Museum, though so reported by Ridgway (1902. U.S.Natl.Mus.Bull. 50, pt. 2:569). H. G. Deignan states (*in litt.*, Nov. 6, 1947) that it is doubtful whether either cotype has ever been in that collection and suggests that my "male Dendroica occidentalis might be one of the original specimens."

In 1837 Audubon planned to explore the west coast of Florida in company with his son and Harris and to proceed as far as possible westward along the Gulf Coast into Texas. The Florida part of the expedition failed to materialize, due principally to the Seminole War, but the party did journey from Charleston through Georgia and Alabama to New Orleans, collecting for three weeks in that vicinity, and then proceeding to Galveston, Texas. There is a brief Harris journal of this trip in the papers now in Alabama, which includes a list of the birds shot and seen. Since the Audubon journal of this expedition was lost and never published, the Harris list fills a gap in the early American literature and is included here (Table 1). There is not a single specimen in the Harris collection bearing a label that indicates it was taken on this trip. Included among the birds, however, are the following (unlabelled): Swallow-tailed Kite (Elanoides forficatus forficatus), Mississippi Kite (Ictinia misisippiensis), Audubon's Caracara (Polyborus cheriway auduboni), Roseate Spoonbill (Ajaia ajaja), and Texas Kingfisher (Chloroceryle americana septentrionalis).

In December 1838, Audubon writes to Harris from London, "I feel a great pleasure in preparing a box of bird skins for you according to your desire." Whether or not any of the skins I hold are of that shipment I have no means of determining, but sixty skins, mainly shore and water birds, bear the French labels of "Aug^e Lefevre, Naturaliste, 24 rue Dauphine à Paris."

Audubon set out on his Missouri River Expedition in the spring of 1843. Accompanying him were his friend Harris (who, no doubt, more than paid his own way), John G. Bell, as taxidermist, Isaac Sprague, as artist, and Lewis Squires, as general assistant and secretary. During this journey, which lasted some eight months, Audubon kept a voluminous journal which was published in 1898 by his granddaughter, Maria Audubon, as a part of the work entitled "Audubon and His Journals"; and Harris (Smiths. Inst. Fifth Ann. Rept., 1851:136-138) published a "List of Birds and Mammalia Found on the Missouri River from Fort Leavenworth to Fort Union" It was not until recently, however, that it became generally known that Harris also kept a diary (which compares favorably with Audubon's in every respect), and this is one of the Harris papers donated to the State of Alabama Department of Archives and History. A copy has been made from the original and sent to the Academy of Natural Sciences, and I have had the pleasure of studying it and comparing it with Audubon's. It has been of material assistance in the appraisal of this collection.

The party left Philadelphia on March 13 and arrived in St. Louis March 28. On April 4, all except Audubon left St. Louis for a few days' collecting in southern Illinois. They returned to St. Louis on April 13. In the Harris collection is a Meadowlark, *Sturnella magna*, which was taken on this side trip. The expedition proper got under way April 25, sailing on the *Omega*. Under date of May 2, Harris writes:

"Arrived at Independence this morning and took on 144 lbs of Tow which we had written for. We paid 25 cts. per lb. for it!!! Saw abundance of Parroquets today. Bell shot two at the first stopping place."

May 3: "Stopped at Fort Leavenworth to take on some cargo. Saw abundance of Parrokeets but did not procure any."

Under date of May 4, Audubon in his journal mentions the taking of seventeen Paroquets. There are five Louisiana Paroquets in the Harris collection, one taken May 3, two on May 4, and two undated but taken in the same locality.

There is much in the journal to indicate how careful an observer Harris was. Under May 4, for example, he writes:

"Missouri R. below black-snake Hills shot a Finch supposed to be new, it has a black head and throat, with a large patch of ash color on the cheeks and lore space running back to its neck. Shot a number of Parroquets today."

May 6: "Shot another Finch of the same species as that of Thursday in better plumage. Both Males. It corresponds in measurements with Townsend's Finch F. Townsendii which was described from a female bird and does not correspond—possibly this may be the male of that bird. We hope to find the female soon."

May 8: "Shot another of the rare Finchs."

Although there must have been considerable discussion over the new finch (for Harris certainly indicates his doubt), Audubon on May 17 writes in his journal: "I am truly proud to name it *Fringilla Harrisii*, in honor of one of the best friends I have in this world." The finch proved to be *Fringilla* [Zonotrichia] querula of Nuttall, but the vernacular name, "Harris' Sparrow" remains as a fitting memorial to the subject of this paper.

The journey from St. Louis to Fort Union, at the mouth of the Yellowstone River, took, according to Harris' entry for June 12, "some 17 hours less than 7 weeks and [we] arrived here earlier in the season by one day than has ever been done before and made a quicker passage than any other boat by about 15 days." In spite of the record speed made upriver, there was much time spent in collecting, observing the Indians, and buffalo hunting. None of my skins bear labels that positively indicate their being taken on the journey up to Fort Union, but by listing the birds mentioned in the Audubon and Harris journals as having been shot en route and comparing them with my skins, it is evident that many are the same.

One Western Meadowlark, *Sturnella neglecta*, bears the label "Missouri River 1843." It is interesting to note that both Harris and Audubon recognized this to be a new species even before a specimen had been secured. It was described by Audubon the following year. Harris remarks—

May 22: "We have seen a Meadowlark to-day which must prove a new one, its note is so entirely different from ours."

May 24: "We killed Red-shafted Woodpecker, Say's Flycatcher, Arkansas F., Lark Finch and several of the new Meadow Larks, for new I will insist it is notwithstanding that we cannot from the books establish any specific difference, yet it is totally different. But as we cannot set down these notes on paper, and the world will not take our words for it if we do, we must be content to refrain from publishing this good species unless we can on our return find a something about the bird

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FROM HARRIS' JOURNAL OF THE GULF COAST EXPEDITION

List of Birds procured and seen on Mr. Audubon's expedition from the S.W. Pass of the Mississippi to Galveston Bay in Texas between the 1st of May 1837.

		Date	Dates last seen at respective places	spective places		
Names of Birds	S. W. Pass	Grand Terre	Cayo	Dernier Isle	Achafalaya Bay Galveston Bay	Galveston Bay
	From Apr. 1 to 2	From Apr. 3 to 9				
Green Heron	Seen	Shot	Seen	Seen	Seen	Seen
Spoon-Bill Duck	Shot	Abundant		Seen	Seen	Seen
Gadwall Duck	Do	Shot. Abundant		Seen	Seen	Seen
Crean Winged Teal	Ļ	Abundant		Coon	Coon	Soon.
Black Duck. A. obseura fusca		Seen		Seen	Seen	Seen
Mallard	Seen [cancelled?]	Seen	Seen	Seen	Seen	Seen
Wood Duck		_				Seen
Widgeon Pintail		Shot	X [ʔ]	x	X	XX
Canvass Back	Saen	•				4
Harleouin Duck	See					,
Sanderling	X	x	X	X	x	X
Stilts						X
Oystercatcher		X	X	X	X	X
Plover, Piping			×	X		X
Wuson's F. Ring P		Shot. Abundant	X	X		X V [cancelled?]
Black-bellied P.			X			
Golden P.		Saw some flocks		-		
Turnstone		X	x	X	X	x
Great Blue Heron		X	X	X	X	X
Great White H.			1			;
White Egret		×	X	X	X	X
Louisiana Heron		X	X	X	X	X
INIGht H.		X	×	×	×	×

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×>	******	X X	XXX		XXX	x	<u> </u>	XXXXXXX	
x	×	X	***	X X [cancelled ?] X	XXX	x x>	****	* ****	
				X X [cancelled ?]			•		
×	XXX	x	XXX	XXX XX	XXX	<u>× ×</u> ×	<	* ****	
	X X [cancelled?]			X X [cancelled ?] X					
×	XX	×	XXX	XXX	XXX	× >	<u> </u>	<u>×××</u>	
x	x	X	Shot X X	Shot X Shot	[See below: 2] Abundant in flocks Seen. Shot Seen. Shot	X Abundant V	X X X X X X	Shot [See below: 4] Shot	
					Abundant Abundant	X total	Abundant	Seen	
Blue H.	Am. bittern Least Bittern Reddish Egret. <i>rufescens</i> American Avocet Roseate Spoonbill Wood Ibis	Furple 1bis Long-billed Curlew	Esquimaux Curtew ruusonicus Red-backed Sandpiper Pectoral Sandpiper Tringa Pusilla	" Minuta Knot Semipalmated Sand	Long-legged Sandpiper Willet Tell-tale Yellow Shanks	Spotted Sandpiper Bartram's Sandpiper Great Marbled Godwit	Wilson's Snipe Clapper Rail Virginian Rail	Purple Gallinule American Coot Black Skimmer Cayente Tern Marsh Tern Common Tern Sandwich Tern	

"Saw a flock and shot one."
 "Shot. Saw a flock of about 20."
 "Found the nest and eggs."
 "Seen. Feed on insects. Very abundant and paired."

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Names of Birds	S. W. Pass	Grand Terre	Cayo	Dernier Isle	Achafalaya Bay	Galveston Bay
Least Tern Black Tern	From Apr. 1 to 2	From Apr. 3 to 9 X [cancelled?] X [cancelled?]	X [cancelled?] X [cancelled?]	X [cancelled?] X [cancelled?]	X [cancelled?] X [cancelled?]	XXX
Sooty Tern Black-headed Gull Common Gull Herring Gull (argentatus) Snow Goose	Shot X	Shot X	XXX	XX	XX	*****
Red-breasted Merganser White Pelican Brown Pelican	X	Seen. Shot Abundant	××	XX	XX	XX
Florida Cormorant Frigate Pelican Snake-bird		Seen X	XXX	XXX	XXX	XXXX
Loon Black-throated Diver			X		-	4 ×
LAND BIRDS Turkey Buzzard Carrion Crow Peregrine Falcon	XXX	×××	×××	XXX	XXX	XXX
Sparrow Hawk Pigeon Hawk Fish Hawk		Seen X	××	xx	××	XX
Mississippi Kite Swallow-tailed Hawk Red-Shouldered Hawk	At New Orleans	X	X	X	×	<u> </u>
Marsh Hawk	Seen	Seen	X	x	x	x

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Screech Owl						×
Virginian Uwi Barred Owl		x	X	x	×	4 X:
Barn Uwi Meadow Lark		x	X	x	×	××
Baltimore Oriole Orchard Oriole		Shot Seen	XX	XX	××	XX
Red-winged Black Cow-bird	Seen. Abundant	Seen	XX		XX	XX
Reed-bird		Shot [cancelled?]			}	}
Boat-tailed Grakle Common Crow Blackhird	Seen in abundance X	Seen	X	X	X	X
Rusty Grakle Common Crow	4	x	XX	XX	××	XX
Fish Crow Blue Tow	X				*	v
Crested Titmouse		X	x	x	X	4X)
Carolina 11tmouse Cedar Bird	i	x	x	x	x	××
Kingbird Great Crested Flycatcher	Saw many	XX	××	XX	××	XX
Arkansa Flycatcher Pewit Flycatcher		×	××	×	×	x
Wood Pewee		X	X	X	X	x
Small Pewee Redstart		x	x	X	X	X
Selby's Flycatcher				x	<i></i>	>
blue-Grey riycatcuer Chat		x	x	x	x	4 X
Yellow-throated Vireo	-	X [ʔ]		X		
White-eyed Vireo	~	Procured	X	X	×	X
Ked-eyed Vireo Mockingbird	-	X Shot. Abundant	XX	××	××	××
Brown Thrush		X	××	X	IX>	××
Wood Thrush		4 ×	<x< td=""><td>«×</td><td>4×</td><td>«×</td></x<>	« ×	4 ×	« ×
Hermit Thrush Wilson's Thrush		XX	XX	××	XX	XX
Water Thrush Louisiana Do.		×	××	××	××	××

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TABLE

FROM HARRIS' JOURNAL OF THE GULF COAST EXPEDITION

List of Birds procured and seen on Mr. Audubon's expedition from the S.W. Pass of the Mississippi to Galveston Bay in Texas between the 1st of May 1837.

		Inc WI	ESON B	ULLE	1 11	ł	Vol. 60	, No. 3	
	Galveston Bay	XXXX	AXXXX	<×××	<××	<u>. xx</u>	x xx	x x	4
	Achafalaya Bay	XXX	XXX	×××	< X	××	××	XXX	x
spective places	Dernier Isle	XXX	XXXX	XXX	X	XXXX	XXXX	XXX	
Dates last seen at respective places	Cayo	XX	X	××	x		XX	XXX	
Date	Grand Terre	From Apr. 3 to 9 X X		Seen			XX	X X Seen here	
	S. W. Pass	From Apr. 1 to 2						Abundant	
	Names of Birds		Yellow-throated Warbler Blackburnian W. Chestnut Sided W. Bay-breated W. Black & White Creeper	Pine Warbler Blue-yellowbacked W. Maryland Yellow-throat	Kentucky Warbler Cerulean Warbler	Worm-eating Warbler Prothonótary W. Blue-winged Yellow W. Golden-winged W.	Nashville W. Roscoe's W. Carolina Wren Short-billed Marsh Wren	Marsh Wren Blue bird Brown Lark	Shore Lark Black-throated Bunting

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Scarlet Tanager Summer Bod bird	×	X	××	X	X×
Indigo Bird	××	××	< X ;	< X)	4 X;
Bay-winged Bunting	X	X	××	×	v
Song Sparrow	X	;	;	X	;
Zavannan Finen Yellow-winged Sparrow	Abundant	¥	x	X	×
Chipping Sparrow	X	X	X	X	X
	×	X	x	×	x
ch –				x	x
Seaside Finch Towhee Bunting	Abundant	XX	××	××	xx
	X	×	×	(X)	X
	>	•	××	××	××
Black-billed Cuckoo	××	4 ×	۲ ×	<×	‹ ×
Golden winged Wood.	X	×	1	X	X
Ivory-billed Woodpecker Pileated Woodnecker				~	××
Red-headed Woodp.			•	<×	{ ×
Red-bellied Woodpeck.				1	×
Yellow-bellied Woodpecker	x	x	x	X	X
Downy Woodpecker Red-cockaded W		-		~	××
Brown headed Nuthach				« ×	××
	Seen	X	X	x	Xi
King Fisher Purple Martin	X Seen	××	A	×	××
Barn Swallow	Seen	×	K	×	×
White-bellied Swallow	Seen	X	x	X	X
Bank Swallow	X	[5] X	x	×	x
Night Hawk	X	×	x	x	X
Chuck Will's Widow					x
winp-poor will (cancelled) Turtle Dove	X	x	×	×	x
Wild Turkey					X
Virginia Fatriage Pinnated Grous					××
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more than we can now discover to establish a specific difference: Mais nous verrons."

June 20: "Sprague pointed out to me to-day a passage in Lewis & Clark's Journal with which we were unacquainted before but which goes far to confirm us in the opinion of the whole of our party that the Meadow Lark of this country is a new one, although we are not prepared without thorough examination and comparison to vouch for any of the differences mentioned by them with the exception of the notes of the bird about which there can be no question. It surprises me that Mr. Nuttall could have passed through this country without noticing this bird as he is so remarkably accurate in describing the notes of birds, indeed, he is almost the only man who has written the language of birds."

June 21: "I neglected last night to give the extract from Lewis and Clark's Journal about the Meadow Lark and will insert it here. It was on the 22nd of June while they were making the portage around the Great Falls of Missouri. They say 'There is also a species of Lark, much resembling the bird called the Old-Field Lark, with a yellow breast and a black spot on the croup, though it differs from the latter in having its tail formed of feathers of an equal length and pointed; the beak too is somewhat longer and more curved, and the note differs considerably.'"

I have seven skins bearing labels from Fort Union (western North Dakota), where the expedition maintained headquarters for two months.

The hybrid flicker ("*Picus ayresii*" of Audubon) and Sprague's Pipit (*Anthus spraguei*) were discovered on June 19. Harris writes: "This morning proved cold and rainy, and we did not go out, but it cleared off partially in the afternoon and Bell and I went out. Bell shot a Yellow-winged Woodpecker with a red stripe on the cheek (instead of a black one as in the common species). This is no doubt a new species to our Fauna, but I am inclined to think that I have somewhere seen a specimen of this bird and that it will not prove entirely new. As we returned home Bell and I fired together and shot a small bird which proves to be an entirely new Anthus or Titlark."

Audubon writes: "Harris and Bell have returned, and, to my delight and utter astonishment, have brought two new birds: one a Lark, small and beautiful; the other like our common Golden-winged Woodpecker, but with a red mark instead of a black one along the lower mandible running backward."

I have a Sprague's Pipit labelled "Fort Union, June 24/43." Cotypes are in the Academy of Natural Sciences and the United States National Museum. My specimen, taken the same day as the Academy's, is another cotype. Under date of June 24, Harris remarks: "In the afternoon Bell and Mr. Audubon rode down to the Fort again and on Phillips

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their way killed more of the new Larks. Sprague was out and killed another, and what is of more consequence discovered its nest with 5 eggs, it is built of grass and placed in a hole in the ground so that the top of the nest is even with the surface, the eggs are thickly spotted of a chocolate color. Mr. Audubon remarked that it had very rarely happened to him to discover a new bird and to ascertain all its habits and to procure its nest and eggs in the course of a few days as has been the case with this bird."

The "new flickers" were the subject of much discussion in both journals, and Harris in particular has much to say about them under dates of July 1 and 2. "I would give a great deal to have Dr. Bachman here with a dozen specimens of Golden-wings from our side of the mountains," he remarks, "wouldn't we make a night of it?"

June 26: "Bell and I walked out with our guns and procured 3 Lazuli Finches." I have one taken on this date.

Much of the latter part of the stay at Fort Union was devoted to buffalo hunting, and the pages of Harris' journal include lengthy descriptions of these experiences. The Harris entry for July 16 tells the story of the most thrilling of these experiences:

"At this stage of the proceedings Owen discovered another Bull making his way slowly across the Prairie directly towards us. I was the only one of the party that had balls for his gun and I would have gladly claimed the privilege of running him but fearing that I might make out badly on my first trial run with my large gun which is altogether too large to run with (weighing eleven pounds) and supposing the meat could be carried to the Fort where it was wanted. I handed my gun and balls to Owen and Bell and I placed ourselves on eminence to view the chase. Owen approached the Bull who had continued to advance and was now about a quarter of a mile distant. The Bull either did not see him or did not heed him and they advanced directly toward each other until they were about 70 or 80 yards when the Buffalo started at a good run, and Owen's mare, which had already had two hard runs this morning had great difficulty in preserving her distance. Owen soon perceived this and applied the whip pretty freely he was soon within shooting distance and fired a shot which sensibly checked the progress of the animal and enabled him quickly to be alongside of him when he discharged the second barrel into his lungs, passing through the shoulder blade, which brought him to stand precisely in the position represented in Catlin's work of the wounded bull But to return to the Bull-Bell and I started now at top of our speed and as soon as we were within speaking distance called to Owen not to shoot again. The Bull did not appear to be much exhausted, but he was so stiffened by the shot in the shoulder that he could not turn quickly, taking advantage of which we approached him, as we came near he would work himself slowly around to face us and then make a

pitch at us. We then stepped to one side and commenced discharging our six-barrelled pistols at him with little more effect than increasing his fury at every shot. His appearance was now one to inspire terror, had we not felt satisfied of our ability to avoid him. I came however very near being overtaken by him through imprudence. I placed myself directly in front of him and as he advanced I fired at his head and then ran directly ahead of him, not supposing he was able to overtake me, but casting my head over my shoulder I saw Mr. Bull within three feet of me, prepared to give me a taste of his horns. The next moment I was off the track and the poor beast was unable to turn quick enough to avenge the insult. Bell now took the gun from Owen and shot him directly behind the shoulder blade, he stood tottering for a few moments with an increased gush of blood from the mouth and nostrils, fell easily on his knees and rolled over on his side and was soon dead."

A curious fact is revealed by a comparison of this entry with that of Audubon in his journal of the same date. The same thrilling story appears, printed almost sentence for sentence (with some change in wording) as told by Harris, as though the experience were Audubon's. Is it possible that faulty copying of the Audubon manuscript in preparation for its publication was responsible for the omission of credit to Harris?

July 29: "I should have mentioned that on Thursday morning at our encampment at the Trois Mamelles Bell shot a Titmouse very similar in its markings to the common Northern Chickadee, but which measures $\frac{7}{8}$ of an inch more in length, than the measurements in Mr. Audubon's Syn., appears to us to have a larger tail and more white on the secondaries, and its note although very similar appears softer and less hurried in utterance."

Audubon failed to recognize it as anything new, and wrote as follows on July 27: "Bell went to skinning the birds shot yesterday, among which was a large Titmouse of the Eastern States." It did prove, however, to be the bird now known as the Long-tailed Chickadee, *Parus atricapillus septentrionalis*, and was described by Harris as *Parus septentrionalis* (*Proc. Acad. Nat. Sci. Phila.*, 11, 1845:300), the only bird ever described by him.

At the same time, Bell and Harris shot several sparrows which appeared to belong to a new species. Audubon described them and named them *Emberiza* [=:*Ammodramus*] *bairdii*, Baird's Bunting, in honor of his young friend, Spencer Fullerton Baird, who had been invited upon the expedition and had had to decline. This was the last bird named, described, and figured by Audubon, the plate being the final one reproduced in the octavo edition of the Birds of America (1844).

The party left Fort Union on August 16 and arrived at St. Louis on October 19. Here the skins were divided up, and a supplemental Harris pocket diary for 1843 includes the following list as his share:

1 Wild Turkey

1 Blue Heron

10 Parrots

1 Magpie

8 M. Lark

1 Sandhill Crane 2 Sharp-tailed Grous

2 Rusty Grackles

9 Arctic Pipilos

1 Purple Martin

2 Cow Buntings

1 Cardinal Bird

2 Cliff Swallows

3 Sav's Flycatchers

1 Rice Bird

13 Lark Finches

12 Arkansas Flycatchers

3 Rose-breasted Grosbeaks

1 White-fronted Goose

LIST OF BIRD SKINS PACKED BY SPRAGUE AND BELL FOR SHARE OF E. HARRIS AT ST. LOUIS 2 Western Shore Larks 1 Baltimore Oriole 8 Sprague's Lark 4 Lincoln Finches 1 Muscicapa? 1 Finch? 1 Smith's Lark Finch 1 Chestnut-collared Bunting 5 Yellow-headed Troupials 4 Arctic Bluebirds 1 Golden-winged Warbler 6 Black-headed Grosbeaks

- 1 Worm-eating Warbler
- 8 Shattuck's Bunting*
- 6 Rocky Mt. Wren
- 4 Lazuli Finches
- 4 White-crowned Sparrows
- 1 Hutchin's Goose
- 1 White Pelican
- 11 Pinnated Grous
- 2 Bell's Vireo
- 1 New Black-capped Titmouse
- 1 Young Snow Goose
- 2 Tennessee Warbler

* Clay-colored Sparrow.

OUT OF THE LIST SENT TO BELL IN EXCHANGE

3 Pinnated Grous	2 Black-headed Grosbeak
3 Arkansas Flycatcher	2 Arctic Pipilos
3 Lark Finch	1 Young-Rocky Mt. Wren

There are forty-two skins in the Harris collection which were contributed by Spencer Baird; twenty of these bear descriptive labels, and the remainder simply have labels in Baird's hand, noting the species but omitting dates and localities. Herbert Friedmann advises me that the twenty labelled skins were entered in the catalogues of the Smithsonian Institution and must therefore have been in Baird's possession after his coming to the Smithsonian in 1850. He also reports a statement in an old memorandum (listing specimens sent to various persons by Baird prior to his connection with the Institution) that in 1844 Baird sent seventy specimens to a Mr. Edward Harris. Of the Baird skins which do bear data, all but two were taken at Carlisle, Pennsylvania, his boyhood home, between 1842 and 1845, the exceptions being a Bachman's Sparrow (Aimophila aestivalis bachmanii), taken in 1845 at Savannah, Georgia, and a Western Bluebird (Sialia mexicana occidentalis), from California, undated, which was probably a Townsend skin. Baird, in a letter to his brother, William, in January 1844, mentions getting "a number of California duplicates from Cassin in the Academy" (W. H. Dall, 1915. "Spencer Fullerton Baird: A Biography," p. 108).

The most interesting Baird specimens are a Passenger Pigeon, Ectopistes migratorius, taken at Carlisle on October 19, 1844 (another Passenger Pigeon is unlabelled) and three Empidonax flycatchers, including two of Baird's own discoveries, the Yellow-bellied, E. flaviventris, and the Least, E. minimus. Both species were described by Spencer and William Baird in September 1843 (Proc. Acad. Nat. Sci. Phila., 1:283-284), and my skins bear May labels of that year.

It would serve little useful purpose to list the entire 400 specimens which comprised the Harris collection as found, including the unlabelled birds and the French trade-skins. Those of particular interest, however, are as follows:

FROM JOHN K. TOWNSEND

- 1. Leucophoyx thula brewsteri (Snowy Egret), &, Walla Walla, Columbia River, July 3, 1836.
- 2. Leucophoyx thula brewsteri (Snowy Egret), Walla Walla, Columbia River, August 13, 1836.
- 3. Perisoreus obscurus obscurus (Oregon Jay), 3, Columbia River, October 11, 1836 (on this date, Townsend was at Ft. Vancouver).

UNLABELLED SKINS, MOST OF WHICH MAY BE ATTRIBUTABLE TO THE TOWNSEND EXPEDITION

- 1. Recurvirostra americana (Avocet)
- 2. Haematopus bachmani (Black Oyster-catcher)
- 3. Sphyrapicus varius ruber (Red-breasted Sapsucker)
- 4. Cinclus mexicanus unicolor (Dipper)
- 5. Ixoreus naevius (Varied Thrush)
- 6. Moho nobilis apicalis (Double-plumed Moho)
- 7. Hemignathus lucidus hanapepe (Nukupu)
- 8. Himatione sanguinea (White-vented Honey-eater)
- 9. Vestiaria coccinea (Red Sickle-bill)
- 10. Vestiaria coccinea (Red Sickle-bill)

FROM THE MISSOURI RIVER TRIP

- 1. Pedioecetes phasianellus (Sharp-tailed Grouse), Ad., Fort Union, June 26, 1843
- 2. Conuropsis carolinensis ludovicianus (Louisiana Paroquet), Kickapou Country, Missouri River, May 3, 1843.
- 3. Conuropsis carolinensis ludovicianus (Louisiana Paroquet), Kickapou Country, Missouri River, May 4, 1843.
- 4. Conuropsis carolinensis ludovicianus (Louisiana Paroquet), Kickapou Country, Missouri River, May, 1843.
- 5. Conuropsis carolinensis ludovicianus (Louisiana Paroquet), Above Ft. Leavenworth, Missouri R., May 4, 1843.
- 6. Conuropsis carolinensis ludovicianus (Louisiana Paroquet), Unlabelled.
- 7. Tyrannus verticalis (Arkansas Kingbird), Ad. 9, Fort Union, June 26, 1843.
- 8. Anthus spraguei (Sprague's Pipit), Ad. 9, Fort Union, June 24, 1843.
- 9. Sturnella magna (Meadowlark), Illinois, April, 1843.
- 10. Sturnella neglecta (Western Meadowlark), Missouri River, 1843.
- Molothrus ater subsp. (Cowbird), Ad. 3, Fort Union, June 22, 1843.
 Pheucticus m. melanocephalus (Rocky Mountain Grosbeak), Fort Union, June 22, 1843.
- 13. Passerina amoena (Lazuli Bunting), Ad. 3, Fort Union, June 26, 1843.
- 14. Spizella pallida (Clay-colored Sparrow), Ad. 9, Fort Union, June, 1843.

UNLABELLED SKINS, MOST OF WHICH APPEAR, THROUGH COMPARISON WITH LIST IN THE HARRIS 1843 DIARY, TO HAVE BEEN PROCURED ON THE MISSOURI RIVER TRIP

- 1. Anser albifrons (White-fronted Goose)
- 2. Tympanuchus cupido pinnatus (Greater Prairie Chicken)
- 3. Meleagris gallopavo silvestris (Eastern Wild Turkey)
- 4. Pelecanus erythrorhynchos (White Pelican)
- 5. Tyrannus verticalis (Arkansas Kingbird)
- 6. Sayornis s. saya (Say's Phoebe)
- 7. Petrochelidon pyrrhonota albifrons (Northern Cliff Swallow)
- 8-11. Salpinctes o. obsoletus (Rock Wren)
- 12. Anthus spraguei (Sprague's Pipit)
- 13. Helmitheros vermivorus (Worm-eating Warbler)
- 14. Vermivora chrysoptera (Golden-winged Warbler)
- 15. Vermivora peregrina (Tennessee Warbler)
- 16-19. Xanthocephalus xanthocephalus (Yellow-headed Blackbird)
- 20-22. Pheucticus m. melanocephalus (Rocky Mountain Grosbeak)
- 23. Guiraca caerulea interfusa (Western Blue Grosbeak)
- 24-27. Pipilo maculatus arcticus (Arctic Towhee)
- 28-34. Chondestes grammacus subsp. (Lark Sparrow)
- 35. Spizella pallida (Clay-colored Sparrow)
- 36-37. Zonotrichia I. leucophrys (White-crowned Sparrow)
- 38. Melospiza l. lincolnii (Lincoln's Sparrow)

SKINS WITH SPENCER F. BAIRD'S LABELS

- 1. Ixobrychus e. exilis (Least Bittern), No. 1522, 9, Carlisle, Pa., May 20, 1844.
- 2. Tringa flavipes (Lesser Yellow-legs), No. 1505, 3, Carlisle, Pa., May 10, 1844.
- 3. Capella gallinago delicata (Wilson's Snipe), No. 2119, ♀, Carlisle, Pa., April 16, 1845.
- 4. Ectopistes migratorius (Passenger Pigeon), No. 1726, Carlisle, Pa., Oct. 19, 1844.
- 5. Zenaidura macroura carolinensis (Eastern Mourning Dove), No. 2072, 3, Carlisle, Pa., April 11, 1845.
- Coccyzus a. americanus (Yellow-billed Cuckoo), No. 1537, Carlisle, Pa., May 17, 1844.
- 7. Centurus carolinus (Red-bellied Woodpecker), No. 794, Carlisle, Pa., Oct. 12, 1842.
- Empidonax flaviventris (Yellow-bellied Flycatcher), No. 1004, 3, Carlisle, Pa., May 20, 1843.
- 9. Empidonax t. traillii (Alder Flycatcher), No. 1013, Carlisle, Pa., May 24, 1843.
- 10. Empidonax minimus (Least Flycatcher), No. 999, Carlisle, Pa., May 20, 1843.
- 11. Sitta canadensis (Red-breasted Nuthatch), No. 857, 3, Carlisle, Pa., Nov. 15, 1842.
- 12. Turdus m. migratorius (Eastern Robin), No. 2052, ^Q, Carlisle, Pa., April 1, 1845.
- 13. Sialia mexicana occidentalis (Western Bluebird), No. 1244, California.
- 14. Wilsonia citrina (Hooded Warbler), No. 2246, 9, Carlisle, Pa., May 7, 1845.
- 15. Dolichonyx oryzivorus (Bobolink), No. 1516, 9, Carlisle, Pa., May 15, 1844.
- 16. Dolichonyx oryzivorus (Bobolink), No. 2297, 3, Carlisle, Pa., May 21, 1845.
- 17. Spinus t. tristis (Eastern Goldfinch), No. 2203, 3, Carlisle, Pa., May 20, 1845.
- Aimophila aestivalis bachmanii (Bachman's Sparrow), No. 2402, Savannah, Ga., 1845.
- 19. Spizella arborea (Tree Sparrow), No. 1771, Carlisle, Pa., Jan., 1845.
- Passerella i. iliaca (Eastern Fox Sparrow), No. 1288, ^Q, Carlisle, Pa., March 11, 1844.

An additional twenty-two skins, all eastern birds, have Baird labels without descriptive data. These probably comprise a part of the early shipment which Baird mentions in a notebook.

Nine of the Harris birds are now in the collection of the Academy of Natural Sciences, having been donated by my father. These are the five Paroquets, a Passenger Pigeon, and three of Townsend's Hawaiian drepanids. Twenty-nine skins, mainly from the Lefevre group but including the *Hemignathus lucidus hanapepe*, are now in the Museum of Zoology, Princeton University. The Newark Museum has eighteen skins given them by my father in 1941 and has discarded twenty-three others "with Mr. Street's permission, evidently because of their condition."

The remainder of the Townsend, Missouri River, and Baird specimens listed herein will go to the Academy of Natural Sciences of Philadelphia with which Harris was so intimately associated. Harris gave many of his specimens to the Academy during his lifetime. The *Proceedings* for 1848 mention a gift of 119 skins. Among entries in the catalogues showing Harris donations are an American Magpie and a Bullock's Oriole from the Townsend Columbia River trip, a further indication that Harris may have had a considerable portion of the Townsend duplicates at one time.

I am indebted to Herbert Friedmann of the U. S. National Museum for information concerning the Baird specimens, to Herbert G. Deignan of that institution for his comments on the Hermit Warbler, to Rodolphe Meyer de Schauensee and James Bond of the Academy of Natural Sciences of Philadelphia for their assistance in the identification of several of the skins, and to Mr. Bond in particular for his many helpful suggestions on the preparation of this paper. Peter A. Brannon of the State of Alabama Department of Archives and History has kindly furnished me with much Harris information, including the hitherto unpublished list from the Gulf Coast Expedition.

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