

Comments on the winter distribution of the Swainson's Hawk (*Buteo swainsoni*) in North America

M. Ralph Browning*

The Swainson's Hawk is an early spring and late fall migrant, arriving in early April and departing by late October in most areas of North America. According to the A.O.U. Check-list (1957), the species' winter range is restricted to Argentina, but it is reported in North America almost every winter (recent issues of *Aud. Field Notes* and *Amer. Birds*). On five recent (1968-1972) Christmas Bird Counts (C B Cs) 15, 14, 37, 35, and 20 Swainson's Hawks, respectively were reported (*Aud. Field Notes* and *Amer. Birds*). Most of these records were from Texas and southern Florida, but birds were reported from as far north in western North America as Washington, and in the East as far north as New Jersey. Altogether, 17 states have reported the species in the five years of CBCs (Table 1). Although this hawk may be easily confused with the Red-tailed Hawk (*Buteo jamaicensis*), Rough-legged Hawk (*B. lagopus*) and possibly other species of *Buteo* depending upon the experience of the observer, and the plumage of the bird, compilers of CBCs have regularly accepted winter sight records.

Other literature adds little to substantiate the numerous winter sight records of the Swainson's Hawk in North America. In Colorado four specimens have been collected between November and January (Bailey and Niedrach, 1965). On the basis of sight records in Texas, the species was formerly considered a winter resident in the eastern part of the state (Strecker, 1912) and more recently only a rare straggler along the Texas coast (Wolfe, 1956). In Florida, it is considered to winter almost annually in Key West (Greene, 1946). Bailey (1931) and Sprunt (1954) list specimens taken during winter at Palm Beach, Miami, and Key West. Brown and Amadon (1968) consider the species regular in southeastern Florida every winter and William B. Robertson (pers. comm.) states that winter groups ranging from several dozen up to rarely 100 birds occur there from October to March.

Both sources believe that most birds in Florida are immatures. According to Allan D. Cruickshank (pers. comm.) the species does not occur every year in southern Florida. There are fewer winter records from other states. On the basis of sight records, Amadon (1964) suggests the possibility of the species wintering in the Midwest. Johnston (1965) mentions midwinter sight records in Kansas. Sutton (1967) cites published sight records from Oklahoma and a February specimen which could not be located for verification (Sutton, pers. comm.). In Louisiana, where the species is considered rare in any season, birds have been observed in August, November, and December (Lowery, 1960).

To help clarify the winter status of the Swainson's Hawk in North America I contacted 15 museums in the United States asking for information on specimens collected from November to late February. Seventeen specimens, hitherto unreported, were examined (Table 2). Eleven of the specimens were collected in early November and most of these may represent migrants. The remaining six specimens were collected in December, January, and February. Most of the specimens were collected before 1950, and all of the specimens from Texas were collected before 1920 (Table 2). Assuming that some of the C B C sight records are correct, the distribution of the species in Texas probably has changed little in this century. A few winter on the coast of Texas every winter (A. D. Cruickshank, pers. comm.).

Records of 138 banding recoveries of Swainson's Hawks obtained from the Bird Banding Laboratory at the Patuxent Wildlife Research Center in Maryland show that eight were recovered between November and February. Of a total of 1,577 birds banded, only three were banded in January and February in North America.

*National Fish and Wildlife Laboratory, National Museum of Natural History, Washington, D. C. 20560

Table 1. Total numbers of Christmas Bird Count sightings (1968-1972), specimens examined, and banding reports of Swainson's Hawks between November and March.

Location	Per cent of total individuals		Number of birds banded or recovered ¹	
	Number of C B C reports		Number of specimens	
Washington	4	6.0	0	
Oregon	2	1.7	1	
California	2	6.9	2	
Idaho	3 ²	6.0	0	1
Arizona	2	1.7	0	
New Mexico	3	5.2	1	
Utah	0			1
Wyoming	1	2.6	0	1
Colorado	2	3.4	4 ³	
Nebraska	1	1.7	0	
Kansas	3	8.6	0	
Oklahoma	1	2.6	0	
Texas	5	39.7	6	2
Iowa	2	4.3	0	
Missouri	2	2.6	0	1
Louisiana	0		1	
New Jersey	1	0.9	0	
Virginia	0			1
Alabama	1	0.9	0	1
Florida	4	5.2	15 ⁴	
Total	39	100.0	30	8

¹An individual banded in Alberta on 3 Aug. 1941 was recovered in Saskatchewan in December 1941.

²Number of birds not indicated in one C B C.

³Bailey and Niedrach (1965)

⁴Bailey (1931), Sprunt (1954), and this study.

Phillips *et al.* (1964) suggest that birds wintering in Arizona are not physically fit to migrate. Although some individuals may winter because they are unable to migrate, there is little evidence to support this hypothesis. Only one of the recovered Swainson's Hawks was reported as having a physical disorder, and none of the specimens I examined showed any signs of ill health such as damaged tarsi, etc., that might influence the ability to migrate.

In evaluating sight records and banding data, the great difficulty in accurately identifying Swainson's Hawks must be kept in mind. The extensive plumage variation in the genus *Buteo* due to color phases and age classes make field identification of many species of *Buteo* difficult, even for the expert. Adult Swainson's Hawks are generally separable in the field from other species of *Buteo* in North America, but identification of immature birds is virtually impossible without critical examination of specimens (R. C.

Laybourne, pers. comm.). The only positive morphological character of identification of the species, especially of immature birds, is the emarginated inner web of the three outermost primaries, a character not present in other Nearctic species of *Buteo* (cf. Friedmann, 1950) except the White-tailed Hawk (*Buteo albicaudatus*) (Wetmore, 1965). The latter, however, is not likely to be confused in the field with the Swainson's Hawk. Behavioral characteristics may be helpful in identifying the Swainson's Hawk, but this method is obviously not totally reliable.

Banding and specimen evidence suggest that most wintering birds are immatures. All of the hawks banded in winter were immatures. Only 18 per cent of the specimens examined are adults. It is possible that immature birds are more readily trapped or collected than are adults. Immature birds of many species, however, are known to depart from the distribution patterns of adults. There are few indications of age (or plumage) from the sight records of the Swainson's Hawk in five recent C B Cs. Assuming that the ages of the collected and banded hawks reflect a normal sample of the wild population, and that the adults observed on the C B Cs are correctly identified, probably less than 18 per cent of all Swainson's Hawk reports in the five year period are acceptable. The value of approximately 18 per cent is not absolute, of course, but may be an indication of the validity of winter sight records of the species. A. D. Cruickshank (pers. comm.) considers less than 10 per cent of the winter reports of the species to be "definitely incorrect."

On the basis of specimens, the winter distribution of the Swainson's Hawk should include North America. The extent of the species' winter range south of North America requires clarification. Friedmann *et al.* (1950) reports birds in Nuevo Leon, Mexico during January and February and Wetmore (1965) reports two specimens collected during winter in Panama. Meyer de Schauensee (1970) lists the Swainson's Hawk as a winter resident in several countries in South America. Amadon (1964) discusses other winter records of the species south of North America.

All sight records of Swainson's Hawks should be considered with caution. Reports of sightings should describe the plumage of the bird, especially if they concern winter birds north of Florida and Texas.

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Table 2. Specimens of Swainson's Hawks collected in North America from November through February

Museum no. ¹	Location	Date	Sex	Age	Collector	Identity verification
OSMNH 2566	Ore.: Benton Co., Corvallis	Nov. 20, 1947	?	ad.	E. Hodson	this study
AMNH 750235	Calif.: San Bernardino Co., Uplands	Jan. 17, 1916	♀	subad.	Chas. Bradler	this study
UMMH 121707	Calif.: Merced Co.	Dec. 2, 1932	♂	ad.	R. H. Beck	this study
UNM 27	New Mex.: Bernalillo Co., Albuquerque	Feb. 3, 1962	?	ad.	W. W. Hill	JPH, JDL ²
AMNH 352651	Tex.: Cameron Co., Brownsville	Jan. 4, 1912	♂	imm.	A. P. Smith	this study
AMNH 352652	Tex.: Cameron Co., Brownsville	Jan. 7, 1912	♂	imm.	A. P. Smith	this study
AMNH 352654	Tex.: Harris Co., Uplands	Nov. 12, 1916	♂	imm.	A. P. Smith	this study
AMNH 352655	Tex.: Harris Co., Uplands	Nov. 12, 1916	♀	imm.	A. P. Smith	this study
AMNH 352656	Tex.: Harris Co., Uplands	Nov. 11, 1916	♀	imm.	A. P. Smith	this study
AMNH 750319	Tex.: Cameron Co., Brownsville	Nov. 2, 1914	♀	subad.	F. B. Armstrong	this study
LSUMZ 32159	La.: Jefferson Davis Par., 2 mi. E Felton	Dec. 6, 1963	♀	subad.	L. C. Binford	this study
UMRC 543	Fla.: Dade Co., NE Homestead	Nov. 2, 1952	♂?	imm.	M. Diaz-Pifferer	this study
UMRC 544	Fla.: Dade Co., NE Homestead	Nov. 2, 1952	♀	imm.	O. Owre, D. Doughty	this study
UMRC 559	Fla.: Dade Co., NE Homestead	Nov. 2, 1952	♂	imm.	O. Owre, D. Doughty	this study
UMRC 672	Fla.: Dade Co., S Alapattah Gardens	Nov. 21, 1954	♀	imm.	P. Payne	this study
UMRC 1444	Fla.: Dade Co., Miami	Nov. 18, 1956	♀	imm.	D. R. Paulson	this study
UMRC 1462	Fla.: Dade Co., Miami	Nov. 4, 1956	♀	imm.	N. Chandler	this study
FSM 15523	Fla.: Dade Co., S Florida City	Jan. 29, 1940	♀	—	H. H. Bailey	JWH ²

¹See acknowledgments for abbreviations of museums

²JWH = J. W. Hardy, JPH = John P. Hubbard, JDL = J. D. Ligon

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