

BIRDS COLLECTED IN INNER MONGOLIA, KANSU, AND
CHIH LI BY THE NATIONAL GEOGRAPHIC SOCIETY'S
CENTRAL-CHINA EXPEDITION UNDER THE DIREC-
TION OF F. R. WULSIN

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In 1922, Mr. F. R. Wulsin went to China to conduct an expedition for the National Geographic Society to study the native non-Chinese peoples in the western and central parts of the Republic. Selecting Kansu as the objective of his first expedition, Mr. Wulsin started from Paotow (railhead), Inner Mongolia, March 26th, and went westward along the base of the Lang Shan Mountains, thence turned southward through Alashan and crossed the Holanshan Mountains into the irrigated plain of Ninghsia in northeastern Kansu. He then went westward and south to Lanchowfu, which was used as a base for further explorations of the Province. In late July, he followed up the Sining River to Sining, crossed the border into Tibet, and spent August 13-14 on the southeast corner of Lake Kokonor. Returning then to Sining, he went southward to Labrang and on to Choni and the Min Shan range, which is on the boundary between southwest Kansu and northwest Szechwan. He then returned to Lanchowfu by a more direct route to the eastward and in early October went down the Yellow River to Paotow and back to Peking.

Mr. Wulsin has furnished the following notes upon the country traversed:

The first region to be considered in Inner Mongolia was the route westward along the base of the Lang Shan range. The region traversed was a plain fairly well watered in its eastern part, desert towards the west. At T'a Shui K'su, the first trading station in Alashan, the drainage basin of the southern Gobi is encountered, and with it a different fauna. A sandy desert extends south to Wang Yeh Fu, an oasis in the Alashan desert, where birds are numerous, attracted by the water and the crops. The next region to be considered is the Holanshan Mountains and Kansu. The irrigated plain, which lies between Ninghsia and Chung Wei, on the west bank of the Yellow River, is one

of the richest areas in the Province of Kansu. At the time of the visit of the expedition in early June it was alive with birds of various kinds.

Between Chung Wei and Lanchowfu the country is a semidesert, first of sand and beyond I Teow Shan of dry earth and loess, almost entirely void of wild life.

Lanchowfu is the natural base of operations for all but the extreme edge of the Province of Kansu. It lies on the Yellow River in a small fertile plain, which is the first hospitable region to greet the traveler who approaches from the north. It is poor, however, in bird and mammal life.

The next region visited was the Tibetan border. Zoologically it falls into two parts: (1) The high rolling plateau of grassland, which makes up most of the Kokonor territory, and (2) the transition belt of mountains, wooded gulleys, and little agricultural settlements, which separate the grassland from Chinese loess country farther eastward. Birds and small mammals are abundant in both types of country. Our march through the country was rapid and the collection obtained, while varied, does not do full justice to the richness of the region.

The last district we visited, and in many ways the most interesting was the range of mountains which lies south of the Tao River and forms the boundary between Kansu and Szechwan. This range, the Minshan, runs east and west. It is very high and rugged and has an abundant rainfall. Tibetan villages exist in some of the valleys. Small mammals and birds are abundant. It would repay intensive collecting over a long period of time.¹

Though its principal activities were in another field, the expedition brought back an important collection of birds, including 502 specimens, from Inner Mongolia and Kansu, the skins having been prepared by a native collector. Apparently no new birds are in the collection, as a number of explorers have more or less thoroughly covered this country ornithologically, especially the Russians, beginning with Przewalski. The present list, however, adds definitely to the knowledge of the geographic distribution of forms in a region none too well known.

While in Peking, packing up and making preparations for further explorations, Wulsin's collector made a small collection of 147 skins at the Eastern Tombs, about 80 miles northeast of Peking, in the autumn and winter. These it is thought advisable to include in this report, as the wildness of this region is being largely destroyed and a record of the bird life, fragmentary as it is may prove useful in the future.

All of the above material has been generously presented to the United States National Museum by the National Geographic Society. It forms an important addition to our series and will prove of the greatest usefulness, particularly since the Museum had little material from Inner Mongolia or Kansu. While, as mentioned, none of the forms secured is apparently new to science, many of them are extremely interesting and were not hitherto represented in our series.

¹ Also consult: *The Road to Wong Ye Fu*, by Frederick R. Wulsin. *National Geographic Magazine*, vol. 49, 1926, pp. 197-234.

They supplement admirably collections previously received from Szechwan and Yunnan.

I am indebted to the authorities of the Museum of Comparative Zoölogy for the loan of a series of *Prunella fulvescens nadiæ* Bangs and Peters.

All measurements in this paper are in millimeters.

Family PHALACROCORACIDÆ

CORMORANTS

1. PHALACROCORAX CARBO SINENSIS (Shaw and Nodder)

Pelecanus sinensis SHAW AND NODDER, Nat. Miscel., vol. 13, 1802, p. 529 (China).

One adult male, 157 miles west-northwest of Paotow, Inner Mongolia, April 9; 1 immature male and 1 immature female, Choni, Kansu, August 30; 2 immature males, southeast corner of Lake Kokonor, Tibet, August 14.

In recent years I have been identifying all specimens of this species received by the Museum from China as of this form, but am not convinced that I am correct in doing so. An adult female from Yunnan and an adult female from Amoy are somewhat smaller than adult specimens from western Szechwan. There may be a southern and northern race in China, but the series at my command is too small to determine the matter. The above specimens from Mongolia and Tibet agree fairly well with the Szechwan series.

The immature male from Choni is a native skin, and there is some doubt as to the correctness of the locality.

Family ARDEIDÆ

HERONS

2. ARDEA CINEREA RECTIROSTRIS Gould

Ardea rectirostris GOULD, Proc. Zool. Soc. London, 1843, p. 22 (New South Wales, error).²

One adult male, 1 immature male (barely feathered), and 2 immature females, 60–80 miles south-southwest of Ninghsia, June 8 and 9; 1 immature female, 40 miles south of Lanchow, Kansu, July 14.

3. IXOBRYCHUS SINENSIS SINENSIS (Gmelin)

Ardea sinensis GMELIN, Sys. Nat., vol. 1, pt. 2, 1789, p. 642 (China).

One male, Peking, Chihli, August 11.

²Type in the Academy of Natural Sciences of Philadelphia from South India. See Stone, Austral. Av. Rec., vol. 1, 1913, p. 142.

Family ANATIDAE

GEESE AND DUCKS

4. ANSER ANSER (Linnaeus)

Anas anser LINNAEUS, Syst. Nat., ed. 10, 1758, p. 123 (Sweden).

One female, 157 miles west-northwest of Paotow, Inner Mongolia, April 8.

5. EULABELIA INDICA (Latham)

Anas indica LATHAM, Ind. Orn., vol. 2, 1790, p. 839 (India).

One male, 60 miles west of Sining, Kansu (southeast corner of Lake Kokonor, Tibet), August 14.

6. CYGNOPSIS CYGNOIDES (Linnaeus)

Anas cygnoid. LINNAEUS, Sys. Nat., ed. 10, 1758, p. 122 (Asia).

One female, 157 miles west-northwest of Patow, Inner Mongolia, April 10.

This specimen is smaller and lighter in color above, almost lacks the rusty white frontal band, the flanks are much lighter, and the bill is shorter and narrower than in two males from Shanghai. Whether these differences are sexual or not it is impossible to say with the series at hand. The culmen measures 81; width of bill at base, 25.5 mm.

7. TADORNA TADORNA (Linnaeus)

Anas tadorna LINNAEUS, Sys. Nat., ed. 10, 1758, p. 122, (Sweden).

One female, 170 miles west-northwest of Paotow, Inner Mongolia, April 13.

8. CASARCA FERRUGINEA (Pallas)

Anas ferruginea PALLAS, Vroeg's Cat., Adumb., 1764. p. 5 (Tartary).

One male, Paotow, Inner Mongolia, March 22; 1 female, 10 miles northwest, March 27; 1 male, 92 miles northwest, April 2; and 2 males, 107 miles west-northwest of Paotow, Inner Mongolia, April 3-4; 1 male and 1 female, 45 miles northwest of Ningshia, Kansu, May 10 and 22.

9. ANAS PLATYRHYNCHOS PLATYRHYNCHOS Linnaeus

Anas platyrhynchos LINNAEUS, Syst. Nat., ed. 10, 1758, p. 125 (Sweden).

One male, Eastern Tombs, Chihli, January 13.

10. ANAS POECILORHYNCHA ZONORHYNCHA Swinhoe

Anas zonorhyncha SWINHOE, Ibis, 1866, p. 394 (Ningpo).

One male, Ningshia, June 3; two males and two females, 50 miles south-southwest of Ningshia, Kansu, June 7.

I refer these specimens to the eastern race with some hesitancy. They are much lighter in color, especially below, but they seem nearer to it than they do to the race occurring in Yunnan and western Szechwan (*A. p. haringtoni*). From the latter they differ in being also lighter, especially below, and lack entirely or almost so, the paler edges to the feathers of the mantle. When a larger and better prepared series is available, it may be necessary to separate the bird occurring in the arid desert country from that from the coast.

11. *DAFILA ACUTA ACUTA* (Linnaeus)

Anas acuta LINNAEUS, Sys. Nat., ed. 10, 1758, p. 126 (Sweden).

One male, 92 miles north of Paotow, Inner Mongolia, April 2.

12. *MERGUS MERGANSER MERGANSER* Linnaeus

Mergus merganser LINNAEUS, Sys. Nat., ed. 10, 1758, p. 129 (Sweden).

One female, 45 miles northwest of Ninghsia, Kansu, May 7.

Family ACCIPITRIDAE

OLD WORLD VULTURES, HAWKS, OSPREYS, ETC.

13. *AEGYPIUS MONACHUS* (Linnaeus)

Vultur monachus LINNAEUS, Sys. Nat., ed. 12, vol. 1, 1763, p. 122 (Arabia).

Two flat skins killed by Mongols during the winter, 1922-23, in Alashan, 50-200 miles northwest of Ninghsia, Kansu.

One of the specimens (304559) has a white secondary covert in the right wing and a partially white one in the left, making the wings almost symmetrical in this respect.

14. *GYPH HIMALAYENSIS* Hume

Gyps himalayensis HUME, My Scrap Book, 1869, pp. 12, 15 (Himalayas, from Cabool to Bhootan).

One female, 20 miles west of Ninghsia, Kansu, June 2.

15. *ACCIPITER NISUS NISOSIMILIS* (Tickell)

Falco nisosimilis TICKELL, Journ. As. Soc. Bengal, vol. 2, 1833 or 34, p. 571 (Borabhum, India).

One female, 45 miles northwest of Ninghsia, Kansu, May 4.

This seems to be lighter above than specimens from central and south China that I have been calling *A. n. melanoschistus* Hume.

16. *GYPHAETUS BARBATUS GRANDIS* Storr

Gypaetus grandis STORR, Alpenreise vom Jahre 1781 (1784), p. 69 (Switzerland).

Two adult flat native skins from the Kansu-Alashan border.

These are, judging from descriptions, fully adult. There are no European specimens in the same stage of plumage in the National

Museum. The striking thing about them is the heaviness of the fluffy under down to the upper parts; this is not noticeable in a made-up skin.

17. *MILVUS LINEATUS* (Gray)

Haliaetus lineatus GRAY, Hardwicke's Ill. Ind. Zool., vol. 1, 1832, p. 1, pl. 18 (China).

One male, 107 miles west-northwest of Paotow, Inner Mongolia, April 14; one female, southeast corner of Lake Kokonor, Tibet, August 14; one male, 30 miles west of Sining, Kansu, August 16.

18. *PANDION HALIAETUS HALIAETUS* (Linnaeus)

Falco haliaetus LINNAEUS, Sys. Nat., ed. 10, 1758, p. 91 (Sweden).

One female, 157 miles west-northwest of Paotow, Inner Mongolia, April 11.

This specimen has a wing 525 mm.

Family FALCONIDAE

FALCONS AND CARACARAS

19. *FALCO REGULUS INSIGNIS* (Clark)

Aesalon regulus insignis CLARK, Proc. U. S. Nat. Mus., vol. 32, 1907, p. 470 (Fusan, Corea).

One male, Eastern Tombs, Chihli, December 19.

A specimen (296193) from the Likiang Plain, Yunnan, April 14, is much darker both above and below and probably belongs to another form, but what name it should bear is a question for the future.

20. *CERCHNEIS TINNUNCULUS DÖRRIESI* Swann

Cerchneis tinnunculus dörriesi SWANN, Syn. List. Accip., 1920, p. 146 (Sidemi, east Siberia).

Five males and one female, 45 miles northwest of Ninghsia, Kansu, May 3.

Both the males and female are considerably lighter than specimens from Szechwan and Yunnan (*C. t. saturatus*); the differences in size are not so great, but the northern birds average larger.

The two latest reviewers³ of the kestrels of eastern Asia place the present race in the synonymy of *Cerchneis tinnunculus tinnunculus*, but the few specimens examined by me point to the birds from the dry arid region of the northeastern section being somewhat lighter than European specimens. Clark⁴ named a pale form from Fusan,

³ Rothschild, Nov. Zool., vol. 33, 1926, pp. 231-233; and Stuart Baker, Fauna Brit. India, Birds, ed. 2, vol. 5, 1928, pp. 60-67.

⁴ Proc. U. S. Nat. Mus., vol. 32, 1907, p. 470.

Chosen, *Cerchneis perpallida*, and it may eventually prove to be the proper name to use for the present form, if recognizable. The type has a lighter gray head and a grayish bloom to the back not seen in the series of males from Ninghsia, Kansu; it is much lighter below. The form was founded on the single specimen, which may be aberrant or it may represent a recognizable form with a more eastern distribution than *C. t. dörriesi*. For the present I prefer to adopt a name of certain application.

21. CERCHNEIS TINNUNCULUS SATURATUS (Blyth)

Falco saturatus BLYTH, Journ. Asiat. Soc. Bengal, vol. 28, 1859, p. 277 (Tenasserim).

One immature male, Choni, Kansu, no date.
This belongs to the dark southern form.

Family PHASIANIDAE

PHEASANTS, ETC.

22. ALECTORIS GRAECA PUBESCENS (Swinhoe)

Caccabis chukar var. *pubescens* SWINHOE, Proc. Zool. Soc. London, 1871, p. 400 (Chefoo).

One female, Paotow, March 18; one male and one female, 30 miles northwest of Paotow, Inner Mongolia, March 29.

23. PERDIX BARBATA BARBATA Verreaux and Des Murs

Perdix barbata VERREAUX and DES MURS, Proc. Zool. Soc. London, 1863, p. 62, pl. 9 (Nertschinsk, Dauria).

One female, 107 miles west-northwest of Paotow, Inner Mongolia, April 4; one male, 45 miles northwest of Ninghsia, Kansu, May 3.

These two specimens are paler, above and below, than any in a small series from north China; in fact they are even paler below than a male of *Perdix b. turcomana* from Gulera, Ferghana, U.S.N.M. No. 159722. The chestnut bars above are somewhat heavier, especially in the female, than in North China specimens.

24. PERDIX HODGSONIAE SIFANICA Przewalski

Perdix sifanica PRZEWAŁSKI, Mongol i Strana Tangut, vol. 2, 1876 p. 124 (Mts. of Kansu); Rowley's Orn. Misc., vol. 2, 1877, p. 423 (transl.).

Two females, Labrang, August 29-30; two females, 105 miles south-southwest of Lanchow, Kansu, September 2.

A female taken August 30 is a bird of the year, about half grown.

The three adult females, compared with a male from Rama La Pass, west Szechwan, have narrower, paler chestnut collars and the

dark bars on the mantle narrower than the latter; this difference may be sexual, however.

25. *COTURNIX COTURNIX JAPONICA* Temminck and Schlegel

Coturnix vulgaris japonica TEMMINCK AND SCHLEGEL, Fauna Japon., Aves, 1842, p. 103, pl. 61 (Japan).

One male and one female, Eastern Tombs, December 21-23.

26. *CROSSOPTILON AURITUM* (Pallas)

Phasianus auritus PALLAS, ZOOGT. ROSSO-ASIAT., vol. 2, 1827, p. 86 (Interior of China).

One male and two females, 120 miles south of Lanchow, Kansu, July 27 and August 2.

One of the specimens marked as a female is probably a male, as it has a blunt spur on the tarsus. This being the case, the only difference between the sexes is the somewhat larger size and the presence of a blunt spur on the tarsus in the males.

27. *PUCRASIA XANTHOSPILA XANTHOSPILA* Gray

Pucrasia xanthospila GRAY, Proc. Zool. Soc. London, 1864, p. 259, pl. 20 (Mts. N. W. of Peking).

Two males and two females, Eastern Tombs, Chihli, January 7.

28. *PHASIANUS COLCHICUS ALASCHANICUS* Alphéraky and Bianchi

Phasianus alashanicus ALPHÉRAKY and BIANCHI, Ann. Mus. Zool. St. Petersburg, vol. 12, pt. 4, 1908, pp. 434, 452 (Alashan).

Two males, 157 miles west-northwest of Paotow, April 3; one male, 210 miles west of Paotow, Inner Mongolia, April 17.

These specimens have a complete white collar. They resemble specimens I have been identifying as *P. c. kiangsuensis* from Shensi, but have the mantle and flanks yellow ocher or lighter, instead of a fiery cinnamon rufous; the red margins to the scapulars much narrower.

29. *PHASIANUS COLCHICUS STRAUCHI* Przewalski

Phasianus colchicus strauschi PRZEWAŁSKI, Mongol i Strana Tangut, vol. 2, 1876, p. 119, pl. 17 (Mts. of Kansu); Rowley's Orn. Misc., vol. 2, pt. 10, 1877, p. 417 (transl.).

Eight males, 2 females, and 2 downy young, from 30 miles east-southeast to 140 miles south of Lanchow, July 16-September 16; 1 male, 25 miles northwest of Sining, August 8; 1 female, 10 miles southeast of Labrang, August 31; 2 males without labels, all from Kansu.

The United States National Museum has two poor males from the type locality (Sungpan) of *P. c. suehchanensis* Bianchi; they differ from the above Kansu series in having the morocco red chest band much less fully developed and are really intermediate between this form and *P. c. elegans*.

The present form resembles *P. c. elegans*; the principal difference is that the shining bronzy green of the chest of that form is crossed in *P. c. strauchii* by a band of shining bronzy morocco red. None of the males in the series has a very long tail.

The summer males have the mantle a lighter red and the tails much lighter and the bars narrower than in fall birds; in fact the tails in the fall are of an entirely different color, the middle feathers sort of a sanford's brown, between the black bars, fading to drab with a little trace of brown by summer.

The downy chicks were taken August 25.

30. SYRMATICUS REEVESII (Gray)

Phasianus reevesii GRAY, Griffith's Anim. Kingd., vol. 8, (Aves. 3), 1823, p. 25 (China).

Three males and four females, Eastern Tombs, Chihli, January and May.

31. CHRYSOLOPHUS PICTUS (Linnaeus)

Phasianus pictus LINNAEUS, Sys. Nat., ed. 10, 1758, p. 158 (China).

One native made male skin purchased in New Taochow, Kansu, supposed to have come from the Szechwan border.

Family RALLIDAE

RAILS, COOTS, ETC.

32. FULICA ATRA ATRA Linnaeus

Fulica atra LINNAEUS, Syst. Nat., ed. 10, 1758, p. 152 (Sweden).

One female, 45 miles northwest of; 1 male and 1 female, 15 miles south-southwest of; and 1 male, 25 miles south-southwest of Ninghsia, May 10, June 5, and 6; 1 male, 1 female, and 1 young not able to fly, Lanchow, June 24. These birds are pale and the frontal shield is much swollen.

Family GRUIDAE

CRANES

33. ANTHROPOIDES VIRGO (Linnaeus)

Ardea virgo LINNAEUS, Syst. Nat., ed. 10, 1758, p. 141. (In Oriente.)

One female, 30 miles west of Ninghsia, Kansu, June 1.

Family CHARADRIIDAE

PLOVERS

34. VANELLUS VANELLUS (Linnaeus)

Tringa vanellus LINNAEUS, Sys. Nat., ed. 10, 1758, p. 148 (Europa, Africa).

Two males and one female, 157 miles west-northwest of Paotow, Inner Mongolia, April 3-9; one female, 10 miles south of Ninghsia, Kansu, October 15.

35. CHARADRIUS DUBIUS CURONICUS Gmelin

Charadrius curonicus GMELIN, Sys. Nat., vol. 1, pt. 2, 1789, p. 692 (Curonia).

One male, 45 miles northwest of Ninghsia, May 5; one male, 65 miles north of Lanchow, Kansu, June 17.

36. IBIDORHYNCHA STRUTHERSII Vigors

Ibidorhyncha struthersii VIGORS, Proc. Zool. Soc. London, 1830, p. 174 (Himalayan Mountains).

One female, 120 miles south of Lanchow, August 3; one female, 25 miles northwest of Sining, August 8; and one male, Choni, Kansu, August 12.

Family SCOLOPACIDAE

SANDPIPERS AND SNIPE

37. TOTANUS TOTANUS EURHINUS Oberholser

Totanus totanus eurhinus OBERHOLSER, Proc. U. S. Nat. Mus., vol. 22, 1900, p. 207 (Lake Tsomoriri, Ladak).

Two males and two females, southeast corner of Lake Kokonor, Tibet, August 14, 16.

38. TRINGA OCHROPUS Linnaeus

Tringa ochropus LINNAEUS, Sys. Nat., ed. 10, 1758, p. 149 (Sweden).

Three males and one female, 45 miles northwest of Ninghsia, Kansu, May 7-9; one male, Eastern Tombs, Chihli, January 13.

39. ACTITIS HYPOLEUCOS (Linnaeus)

Tringa hypoleucos LINNAEUS, Sys. Nat., ed. 10, 1758, p. 149 (Sweden).

Two males, 45 miles northwest of Ninghsia, Kansu, May 6 and 22; one female, southeast corner of Lake Kokonor, Tibet, August 14.

Family LARIDAE

GULLS AND TERNS

40. LARUS ICHTHYAËTUS Pallas

Larus ichthyaetus PALLAS, Reise Russ. Reichs, vol. 2, 1773, p. 713 (Caspian Sea).

One male and one female, southeast corner of Lake Kokonor, August 14.

Both of these specimens are immature, molting into the first winter plumage.

41. LARUS RIDIBUNDUS SIBIRICUS Buturlin

Larus ridibundus sibiricus BUTURLIN, MESS. ORN., vol. 2, 1911, p. 66 (Kolyma Delta).

One adult male and one not quite fully adult female, 157 miles west-northwest of Paotow, Inner Mongolia, April 11.

42. LARUS BRUNNEICEPHALUS Jerdon

Larus brunneicephalus JERDON, Madras Journ. Lit. and Sci., vol. 12, 1840, p. 225 (India).

One immature female, southeast corner of Lake Kokonor, Tibet, August 14.

43. STERNA HIRUNDO TIBETANA Saunders

Sterna tibetana SAUNDERS, Proc. Zool. Soc. London, 1876, p. 649 (Tibet).

One male, 15 miles south-southwest of Ninghsia, Kansu, June 5; two males and three females, Lanchow, Kansu, June 24-25; one male, southeast corner of Lake Kokonor, Tibet, August 14.

Two males in the United States National Museum from Ladak, taken July 29 and September 11, are considerably darker on the upper surface than any in the above series, and the Kansu specimens may constitute another recognizable form from the arid interior country, or they may possibly belong to the form named by Doctor Sushkin, *Sterna hirundo minussensis*.⁵

44. CHLIDONIAS LEUCOPAREIA SWINHOEI (Mathews)

Hydrochelidon leucopareia swinhoei MATHEWS, Birds Austral., vol. 2, 1912, p. 320 (Foochow, China).

One male, 15 miles south-southwest of Ninghsia, Kansu, June 5.

The series at my command is inadequate to properly determine the form of the above specimen. It closely resembles in color two males in the United States National Museum from Mindanao taken in May, but has a slightly longer wing. The wing measures 230 mm.

⁵ List and distr. birds Russian Altai, 1925, p. 64.

Family PTEROCLIDAE

SAND-GROUSE

45. SYRRHAPTES PARADOXUS (Pallas)

Tetrao paradoxus PALLAS, Reise Russ. Reichs, vol. 2, 1773, p. 712, pl. F
(southern Tartary Desert).

One male, 107 miles northwest of Paotow, Inner Mongolia, April 3.

Family COLUMBIDAE

PIGEONS AND DOVES

46. COLUMBA RUPESTRIS RUPESTRIS Pallas

Columba oenas ♂ *rupestris* PALLAS, Zoogr. Rosso-Asia., vol. 1, 1827, p. 560
(Dauria).

Three males, 225 miles west of Paotow, Inner Mongolia, April 19;
1 male and 1 female, 55 miles, northwest of Ninghsia, Kansu, May 1;
1 female, Eastern Tombs, Chihli, January 8.

The above series is slightly lighter above and below than a small series from western Szechwan.

47. COLUMBA LIVIA NEGLECTA Hume

Columba neglecta HUME, Lahore to Yarkand, 1873, p. 272 (Ladak).

One male, Paotow, Inner Mongolia, March 21.

The above specimen can not be distinguished from a series of this form from Kashmir.

The United States National Museum has a specimen (No. 237656) from the Tai-peishan district, 80 miles west-southwest of Sianfu, Shensi, taken by Arthur de C. Sowerby, April 3, that comes very close to *neglecta* from Kashmir, also. It only differs in being very slightly paler above and below.

In the collection there is a male from Paotow and two females from 157 to 225 miles west of Paotow that are very dark, especially above, that I am not listing separately. These are evidently domestic pigeons gone wild. One has all the primaries on one wing white, except one, while in the other wing three are white. The National Museum also contains a specimen of this dark variety from Japan (No. 132432). Doctor Rock took it in south Kansu.⁶

Now whether the specimen listed as *Columba livia neglecta* from Paotow and the specimen referred to from Shensi belong to the domestic variety also, or are an extension to the east of the Turkestan form, some one in the future will have to decide. Certainly there seems to be no previous record so far to the eastward.

⁶ Bull. Mus. Comp. Zool., vol. 68, 1928, p. 320.

48. *STREPTOPELIA DECAOCTO DECAOCTO* (Frivaldszky)

Columba risoria Linnaeus var. *decaocto* FRIVALDSZKY, A. M. Társaság Evkönyvei (ungarische Akademieschriften), 1834-1836, 3 kötet (3 Band), osztály (Teil) 3, 1838, pp. 183, 184, pl. 8 (Turkey).

Two males and 1 female, Paotow, Inner Mongolia, March 18; 1 male and 1 female, 45 miles northwest of Ninghsia, Kansu, May 4.

49. *STREPTOPELIA ORIENTALIS ORIENTALIS* Latham

Columba orientalis LATHAM, Ind. Orn., vol. 2 1790, p. 606 (China).

One male, 30 miles west of Ninghsia, June 1; one male, 120 miles south of Lanchow, Kansu, July 26.

Family CUCULIDAE

CUCKOOS

50. *CUCULUS CANORUS TELEPHONUS* Heine

Cuculus telephonus HEINE, Journ. f. Orn. 1863. p. 352 (Japan).

One adult female, 60 miles south-southwest of Ninghsia, June 8; 1 adult female, Lanchow, July 4; and 1 immature male, and 1 adult female, 120 miles south of Lanchow, May 28 and August 4, all in Kansu.

The two adults from Ninghsia and Lanchow are rather pale with the bars below very narrow.

Family BUBONIDAE

EARED-OWLS

51. *ASIO OTUS OTUS* (Linnaeus)

Strix otus LINNAEUS, Sys. Nat., ed. 10, 1758, p. 92 (Sweden).

One female, Eastern Tombs, Chihli, January 10.

This is a very light-colored bird with the buffy markings above and below much reduced.

52. *BUBO BUBO SETSCHUANUS* Reichenow

Bubo bubo setschuanus REICHENOW, Orn. Monatsb., 1903, p. 86 (Setschuan).

One male, Labrang, Kansu, August 30; one purchased native skin about 30 miles west of Sining, Kansu, winter.

The male from Labrang agrees (allowing for sex) with a specimen from Yunnan that the late Dr. Peter Suschkin identified as of this form; if anything it is slightly darker. The purchased specimen is considerably lighter than that from Labrang, and it is very doubtful if they belong to the same form; it is also probable that it

may have been brought from further north, but to what form to assign it is difficult to say at this time.

53. *STRIX ALUCO MA* (Clark)

Syrnium ma CLARK, Proc. U. S. Nat. Mus., vol. 32, 1907, p. 471 (Fusan, Korea).

One female, Eastern Tombs, January 10.

If *Strix aluco ma* is really only a synonym of *Strix nivicola* Blyth, as suggested by Hartert,⁷ then my *Strix nivipetens* is a very distinct species, but I am now of the opinion that the latter equals *Strix nivicola*. Only an examination of Blyth's type can settle the matter. *Syrnium ma* is certainly only a race of *Strix aluco* while *Strix nivicola* belongs to a southern type with a different wing formula and the toes more extensively bare; the coloration much darker. Since the above was written, Mr. Outram Bangs has examined the National Museum specimens of *Strix nivicola* and reached practically the same conclusions (Bull. Mus. Comp. Zoöl., vol. 70, 1930, p. 197).

54. *ATHENE NOCTUA BACTRIANA* Hutton

Athene bactriana HUTTON, Journ. As. Soc. Bengal., vol. 16, 1847, p. 776 (Old Candahar, Afghanistan).

One male, 180 miles west-northwest of Paotow, Inner Mongolia, April 14; two females, 85 and 65 miles north of Lanchow, Kansu, June 16 and 17.

The male from Paotow is slightly lighter even than a specimen of this form from Transcaspia. The two Kansu specimens are much like the Transcaspian bird above but slightly darker below, as they are more worn. Two males of *A. n. plumipes* from the Provinces of Shansi and Shensi are considerably darker, especially on the upper parts.

Family MICROPODIDAE

SWIFTS

55. *MICROPUS APUS PEKINENSIS* (Swinhoe)

Cypselus pekinensis SWINHOE, Proc. Zool. Soc. London, 1870, p. 435 (Peking).

One female, Lanchow, Kansu, July 11.

This is considerably lighter than Chihli specimens, but plaster had been used in its preparation and this always lightens dark-colored birds.

⁷ Vögel paläarkt. Fauna, part 7, 1913, p. 1026.

Family UPUPIDAE

HOOPES

56. UPUPA EPOPS SATURATA Lönnerberg

Upupa epops saturata LÖNNBERG, Arkiv för Zool., vol. 5, no. 9, 1909, p. 29 (Kjachta, Mongolia).

Two males, 100 miles northwest of Ninghsia, April 25; one male 15 miles east-southeast of Lanchow, Kansu, July 11.

Family PICIDAE

WOODPECKERS, ETC.

57. PICUS CANUS ZIMMERMANNI Reichenow

Picus canus zimmermanni REICHENOW, Orn. Monatsb., 1903, p. 86 (Tsingtao, Shantung).

Five males and four females, Eastern Tombs, Chihli, December 21 to January 18.

One male (304612) has the long nape feathers tipped with black, showing a tendency toward *Picus canus guerini*.

58. PICUS CANUS GUERINI (Malherbe)

Chloropicus guerini MALHERBE, Rev. et Mag. Zool., 1849, p. 539 (China).

Five males and 16 females, Kansu (Lanchow, July 3, 4; 15 miles east-southeast of Lanchow, July 10; 80 miles south of Lanchow, September 16; 90 miles southeast of Lanchow, September 1; 120 miles south of Lanchow, July 25–August 14; 10 miles north-east of Sining, August 4; Choni, July 4–August 7).

This series is too much abraded and faded to be used for comparison with fresh specimens. In the summer examples the green has practically faded from the back and breast. The autumn birds in fresh plumage agree fairly well with Shanghai specimens.

59. DRYOBATES MAJOR CABANISI (Malherbe)

Picus cabanisi MALHERBE, Journ. für Orn., 1854, p. 172 (China).

Two males and eight females, Eastern Tombs, Chihli, December 8–28.

60. DRYOBATES MAJOR STRESEMANNI Rensch

Dryobates major stresemanni RENSCH, Abh. u. Ber. Mus. f. Tierk. u. Volkerk. Dresden, vol. 16, No 2, 1924, p. 38 (Tsalila, Szechwan).

One male and two females, 90–120 miles south of Lanchow, Kansu, July 26, August 6, and September 1.

One of the females is still in immature plumage and the other female and the male are molting, apparently from a darker to a lighter plumage below.

Adult birds from Yunnan, when laid out in series, average darker below with more heavily barred outer tail feathers than specimens from Chihli or eastern China although a few individual birds from northern or eastern China approach them. The width of the white bars on the outer tail feathers shows a tendency to an increase in northern birds, but it is not constant; in specimens from Yunnan the heavy black barring on the outer tail feathers is apparently uniform, judging by the series in the United States National Museum. The Kansu specimens are somewhat intermediate between northern and Yunnan skins, but probably on the whole nearer the latter in the barring of the outer tail feathers.

61. *YUNGIPICUS SCINTILLICEPS SCINTILLICEPS* (Swinhoe)

Picus scintilliceps SWINHÖE, Ibis, 1863, p. 96 (Peking).

Two males and six females, Eastern Tombs, Chihli, December 9–January 5.

It seems to me that *Yungipicus scintilliceps* is not a form of *semicoronatus* or *mitchellii* (= *pygmaeus* of authors), but had better be kept distinct; it contains several valid forms.

62. *JYNX TORQUILLA JAPONICA* Bonaparte

Jynx japonica BONAPARTE, Consp. Gen. Av., vol. 1, 1850, p. 112 (Japan).

One male and four females, Kansu (45 miles northwest of Ninghsia, May 10; 15 miles east-southeast of, July 10; 100 miles south of, August 27; and 120 miles south of Lanchow, July 26).

Family ALAUDIDAE

LARKS

63. *OTOCORIS ALPESTRIS BRANDTI* Dresser

Otocorys brandti DRESSER, Birds Europe, vol. 4, 1874, pp. 397, 402, (Kirgisien-Steppe).

One male, 92 miles northwest of Paotow, Inner Mongolia, April 2; 1 male, 15 miles northwest (Holanshan Mountains), May 12; 1 male, 30 miles west, June 1, 1 male, 45 miles northwest, May 5, and 1 male, 105 miles north-northwest of Ninghsia, April 24; 1 male, 65 miles north, June 17, and 2 immature males and 2 immature females 90–100 miles southwest of Lanchow, Kansu, August 28–September 1.

The adults in the above series agree fairly well with two specimens from the Russian Altai, except the wing seems to be shorter.

64. *OTOCORIS ALPESTRIS NIGRIFRONS* Przewalski

Otocoris nigrifrons PRZEWALSKI, Mongol i Strana Tangut, vol. 2, 1876, p. 103 (Kansu, Kokonor, Zaidam, and northern Tibet; type locality restricted by Bangs and Peters⁸ to grasslands about Lake Kokonor).

One immature female, 40 miles west of Sining, Kansu, August 15; one adult and two immature males, southeast corner of Lake Kokonor, Tibet, August 14.

The only adult in the above series has a longer culmen than any in the series identified as *O. a brandti* from further east, and has the back darker and the black band across the forehead somewhat broader.

One of the immatures from Lake Kokonor is still in the spotted plumage.

The adult measures: Wing 115; culmen, 15 mm.

65. *ALAUDA ARVENSIS INTERMEDIA* Swinhoe

Alda intermedia SWINHOE, Proc. Zool. Soc. London, 1863, p. 89 (Shanghai).

One female, Paotow, Inner Mongolia, March 19.

66. *CALANDRELLA MINOR KUKUNOORENSIS* (Przewalski)

Aldula kukunoorensis PRZEWALSKI, Mongol i Strana Tangut, vol. 2, 1876, p. 103 (Kukunor and Tsai-dam); Rowley's Orn. Miscel., vol. 2, 1877, p. 316 (transl.).

One female and one unsexed, 92 and 107 miles northwest of Paotow, Inner Mongolia, April 2 and 3; one female, 55 miles northwest of Ninghsia, Kansu, May 1.

The above specimens have considerably longer wings and heavier bills than birds from northeast China (*C. m. cheleensis*). They do not seem to be very different in color.

67. *GALERIDA CRISTATA RETRUSA* Bangs and Peters

Galerida cristata retrusa BANGS and PETERS, Bull. Mus. Comp. Zool., vol. 68, 1928, p. 370 (Kanchow plain, foot of the northern Kanchow Nanshan).

Two males, Paotow, March 19; 1 female, 10 miles northwest, March 27; 3 males, 157 miles west-northwest, April 10; and 2 males, 120 miles west of Paotow, Inner Mongolia, October 21.

These average larger and somewhat lighter than birds from eastern China (*G. c. leautungensis*). If these are correctly identified, they constitute a considerable extension eastwards of the known range of the form.

68. *GALERIDA CRISTATA LEAUTUNGENSIS* (Swinhoe)

Alda leautungensis SWINHOE, Ibis, 1861, p. 256 (Talienwan, Prov. Liautung).

One male, Eastern Tombs, Chihli, December 12.

⁸ Bull. Mus. Comp. Zool., vol. 68, 1928, p. 370.

69. MELANOCORYPHA MONGOLICA (Pallas)

Alauda mongolica PALLAS, Reise Prov. Russ. Reichs, vol. 3, 1776, p. 697 (between Onon and Argun).

One male, southeast corner of Lake Kokonor, Tibet, August 14.

70. MELANOCORYPHA MAXIMA Gould

Melanocorypha maxima GOULD, Birds of Asia, vol. 4, 1867, pl. 72 and text (supposed to be Afghanistan).

One male and one female, southeast corner of Lake Kokonor, Tibet, August 14.

The male is considerably larger than the female.

Family HIRUNDINIDAE

SWALLOWS

71. PTYONOPROGNE RUPESTRIS (Scopoli)

Hirundo rupestris SCOPOLI, Annus I Hist.-Nat., 1769, p. 167 (Tirol).

One female, 15 miles northwest of Ninghsia (Holanshan Mountains), Kansu, May 16.

The above specimen and a male and female from Yunnan are darker above than a series from south Europe and Kashmir; the latter do not seem to differ in color from the typical race.

72. HIRUNDO RUSTICA GUTTURALIS Scopoli

Hirundo gutturalis SCOPOLI, Del. Flor. and Faun. Insubr., vol. 2, 1786, p. 96 (Nova Guiana).

One male and one female, 45 miles northwest of Ninghsia, Kansu, May 3 and 22; one immature male, Peking, Chihli, August 3.

73. HIRUNDO DAURICA DAURICA Linnaeus

Hirundo daurica LINNAEUS, Mantissa Plantarum, 1771, p. 528 (Siberia).

One female, 45 miles northwest of Ninghsia, May 26; one male and one female, 15 miles east-southeast of Lanchow, Kansu, July 10.

Family CORVIDAE

CROWS AND JAYS

74. CORVUS CORAX TIBETANUS Hodgson

Corvus tibetanus HODGSON, Ann. Mag. Nat. Hist., ser. 2, vol. 3, 1849, p. 203 (Tibet).

One male, 100 miles south of Lanchow, Kansu, August 30.

This is an immature bird molting into adult plumage. It is full grown and measures: Wing, 442; tail, 280; culmen, 79; depth of bill at base, 31.5 mm.

75. *CORVUS MACRORHYNCHOS HASSI* Reichenow

Corvus hassi REICHENOW, Orn. Monatsber., 1907, p. 51 (Tsingtau).

Two males and two females, Eastern Tombs, Chihli, January 11 and 14.

76. *CORVUS CORONE ORIENTALIS* Eversmann

Corvus orientalis EVERSMAUN, Add. Pallas Zoogr., fasc. 2, 1841, p. 7 (Buchtarma).

One male, 100 miles southwest of Lanchow, Kansu, August 31.

77. *COLOEUS DAURICUS DAURICUS* (Pallas)

Corvus dauuricus PALLAS, Reise Russ. Reichs, vol. 3, Anhang, 1776, p. 694 (near Lake Baikal).

One male, Paotow, Inner Mongolia, March 18.

78. *COLOEUS FUSCICOLLIS* (Vieillot)

Corvus fuscicollis VIEILLOT, Tabl. Enc. Méth., Orn., vol. 2, 1823, p. 880 (Lake Baikal).

Corvus neglectus SCHLEGEL, Bijdr. Dierk. Amsterdam, Afl. 8, Corvus, 1859, p. 16 (Japan).

One male and one female, 45 miles northwest of Ninghsia, May 4.

79. *PICA PICA SERICEA* Gould

Pica sericea GOULD, Proc. Zool. Soc. London, 1845, p. 2 (Amoy, Fukien).

Three males and four females, Eastern Tombs, Chihli, December 24-31.

80. *CYANOPICA CYANA INTERPOSITA* Hartert

Cyanopica cyana interposita HARTERT, Nov. Zool., vol. 24, 1917, p. 493 (Tsinling Mountains).

One male and 2 females, Eastern Tombs, Chihli, December 15 and 27; 1 adult male, 2 adult females, and 2 immature females, 120 miles south of Lanchow, July 20-August 16; 1 immature male and 1 immature female, 90 miles south of Lanchow, September 1; 1 immature female, 10 miles northeast of Sining, Kansu, August 4.

The adult Kansu birds are smaller with smaller bills than those from Chihli and may not belong to the same form. It may be there are only two forms, a northern and a southern, but where to draw the line is the difficulty.

81. *UROCISSA ERYTHORHYNCHA BREVIVEXILLA* Swinhoe

Urocissa breviveilla SWINHOE, Proc. Zool. Soc. London, 1873, p. 688 (Western hills of Peking).

One male and two females, Eastern Tombs, Chihli, December 31.

All specimens of this jay examined by me from north China are a much lighter blue above than those from the Yangtze south. This agrees with La Touche's⁹ experience, also.

82. *GARRULUS GLANDARIUS PEKINGENSIS* Reichenow

Garrulus bispecularis pekingensis REICHENOW, Journ. für Orn., 1905, p. 425, (Peking).

One male, 100 miles southwest of, August 31, and 1 male, 90 miles southwest of Lanchow, Kansu, September 1.

The specimen taken August 31 agrees fairly well with a male from 15 miles south of Sianfu, Shensi of this form. The September bird shows an approach toward *G. g. brandti*; the speculum at the base of the inner primaries and outer secondaries is white distally on the eighth and ninth primary and without bars, the bars appearing basally and normally on the other feathers.

83. *PYRRHOCORAX PYRRHOCORAX BRACHYPUS* (Swinhøe)

Fregilus graculus var. *brachypus* SWINHØE, Proc. Zool. Soc. London, 1871, p. 383 (Peking).

One male and 1 female, Paotow, Inner Mongolia, March 18; 2 males and 2 females, 15 miles northwest of Ninghsia (Holanshan Mountains), Kansu, May 13-15; 1 male, Lake Kokonor, Tibet, August 13.

This series averages smaller with smaller bills than birds from southwest Szechwan and northern Yunnan (*P. p. himalayanus*).

84. *PSEUDOPODOCES HUMILIS SAXICOLA* Stresemann

Pseudopodoces humilis saxicola STRESEMANN, Ornith. Monatsb., vol. 36, 1928, p. 82 (Lamasery Mantusse, district of Sining-fu, N. Kansu).

One female, southeast corner of Lake Kokonor, Tibet, August 14; 1 female, 40 miles west of Sining, August 18; 5 males, 100 miles southwest of Lanchow, Kansu, August 28 and 29.

This is one of the most interesting birds received by the National Museum in recent years, representing a quite distinct monotypic genus. It differs from *Podoces* Fischer (type *Podoces panderi* Fischer) in the proportionally shorter tail and outer primary; the scutellation on the acrotarsium obsolescent, instead of well-marked and obvious. From *Eupodoces* Zarudny and Loudon (type *Podoces biddulphi* Hume) *Pseudopodoces* differs in the proportionally shorter tail, bill, and outer primary; the barbs on the feathers of the mentum less prominent; the feathers of the crown not metallic or obviously elongated posteriorly; and there are other characters, but enough have been enumerated to show that it is quite distinct. All three genera seem to be well-founded and worthy of recognition.

⁹ Handbook Birds Eastern China, pt. 1, 1925, p. 17.

Pseudopodoces humilis is a small bird with a superficial resemblance to a lark. It is much smaller than the members of the other two genera mentioned above.

There are no typical *P. humilis* available for comparison and *P. h. saxicola* is here recognized on geographic grounds, the series being practically topotypic.

Family PARIDAE

TITMICE

85. PARUS MAJOR ARTATUS Thayer and Bangs

Parus major artatus THAYER and BANGS, Bull. Mus. Comp. Zool., vol. 52, 1909, p. 140 (Ichang, Hupeh, China).

Two males and one female, Eastern Tombs, Chihli, December 12-20.

In one male the black on the inner web of the outer tail feather occupies about half the web; in the other it is much reduced.

Ornithologists owe a debt of gratitude to La Touche¹⁰ for straightening out the forms of this species occurring in eastern China.

86. PARUS MAJOR TIBETANUS Hartert

Parus major tibetanus HARTERT, Vögel paläarkt. Fauna, vol. 1, pt. 3, 1905, p. 346 (Chaksam, Tsongpo Valley, Tibet).

Two males and two females, 120 miles south of Lanchow, Kansu, August 8-11.

These are all young birds, too young for correct determination. The tail is about two-thirds grown; the outer feather with only a narrow black border basally on the inner web.

No adult specimens from the type locality (Tatsienlu, Szechwan) of *Parus major subtibetanus* Kleinschmidt and Weigold¹¹ are available for comparison, but quite a large series from farther east in the Province, mostly from the vicinity of Suifu, do not appear to differ materially from birds from the mountains of northwest Yunnan that Rothschild¹² has assigned to *tibetanus*.

87. PENTHESTES SONGARUS AFFINIS (Przewalski)

Poecile affinis PRZEWALSKI, Mongol i Strana Tangut, vol. 2, 1876, p. 52; Rowley's Ornith. Miscell., vol. 2, 1877, p. 188 (Alashan Mountains and Kansu).

Three males, 15 miles northwest of Ninghsia (Holanshan Mountains), Kansu, May 13-14.

Przewalski (in the translation in Rowley's Ornith. Miscell., cited above) says: "Not having preserved any specimens from Muni-ul

¹⁰ Handb. Birds Eastern China, pt. 1, 1925, pp. 23-25.

¹¹ Abh. u. Ber. Mus. Dresden, vol. 15, 1922, p. 11.

¹² Nov. Zool., vol. 30, 1923, p. 263.

and the Hoang-ho Valley, we can not state with certainty whether the birds we shot there belonged to the present species or not."

Not having any specimens for comparison, I can not do better; the above specimens do not exactly agree with the description. They resemble *Penthestes cinctus*, the top of the head is darker, not black, however, but sepia; the back and flanks not darker but lighter, not so tawny. It is a question, though, what Przewalski called black; he says *coffee-black*, probably meaning dark brown.

88. PERIPARUS ATER PEKINENSIS (David)

Parus pekinensis DAVID, Ibis, 1870, p. 155 (Peking, China).

One male, Eastern Tombs, Chihli, January 1.

89. AEGITHALOS GLAUCOGULARIS VINACEUS (Verreaux)

Mecistura vinacea VERREAUX, Nouv. Arch. Mus. Paris, vol. 6, Bull., 1870, p. 39 (mts. of Chinese Tibet).

Two females, Eastern Tombs, Chihli, December 13 and 18; one male immature, 120 miles south of Lanchow, Kansu, August 3.

A few years ago I recorded¹³ a pair of these birds from the Lashipa Plain, Yunnan. Recently Lord Rothschild¹⁴ has questioned this identification. The specimens in question are in worn plumage but are considerably larger than *Aegithalos glaucogularis glaucogularis*, of which the United States National Museum possesses a good series. At the time I made the above identification I did not have specimens of *A. g. vinaceus* for comparison, but the two above specimens confirm my identification of the Yunnan birds. *Mecistura vinacea* has usually been placed as a race of *Aegithalos caudatus* by authors, but La Touche¹⁵ has made it a race of *glaucogularis*, which seems to me more logical. The two races differ principally in size.

Family PARADOXORNITHIDAE

PARROT-BILLS

90. SUTHORA WEBBIANA FULVICAUDA Campbell

Suthora fulvicauda CAMPBELL, Ibis, 1892, p. 237 (Chemulpo, Corea).

One female, Eastern Tombs, Chihli, January 5.

¹³ Proc. U. S. Nat. Mus., vol. 70, art. 5, 1926, p. 50.

¹⁴ Nov. Zool., vol. 33, no. 4, 1927, p. 396.

¹⁵ Handbook Birds Eastern China, pt. 1, 1925, p. 32.

Family SITTIDAE

NUTHATCHES

91. *SITTA EUROPAEA AMURENSIS* Swinhoe

Sitta amurensis SWINHOE, Proc. Zool. Soc. London, 1871, p. 350 (Amoorland).

Male and female, Eastern Tombs, Chihli, December 28 and January 5.

92. *SITTA VILLOSA* Verreaux

Sitta villosa VERREAUX, Nouv. Arch. Mus. Paris, vol. 1, Bull., 1865, p. 78, pl. 5, fig. 1 (north of Peking).

Three males, Eastern Tombs, Chihli, December 16–January 1.

Family CERTHIIDAE

CREEPERS

93. *TICHODROMA MURARIA* (Linnaeus)

Certhia muraria LINNAEUS, Sys. Nat., ed. 12, vol. 1, 1766, p. 184 (S. Europe).

One male, Paotow, Inner Mongolia, March 22; 1 male 15 miles northwest of Ninghsia (Holanshan Mountains), May 16; 1 male, 15 miles east-southeast of Lanchow, July 12; and 1 female (marked male), 30 miles west of Sining, Kansu, August 17.

While the United States National Museum has been accumulating quite a series of this species from Asia, it still lacks satisfactory material from Europe. A pair of birds from Saxony are much lighter and have longer bills than any I have been able to examine from Asia. Four females from Kashmir are darker and have shorter bills than a female from Saxony. A fair series from the mountains of China show quite a little variation among themselves. While they seem to average a clearer, purer gray above than Kashmir specimens, yet there are birds in the series that are identical with the latter, or almost so, and in any future subdivision should be kept together.

Family TIMALIIDAE

TIMALINE-BIRDS

94. *PTERORHINUS DAVIDI DAVIDI* Swinhoe

Pterorhinus davidi SWINHOE, Ibis, 1869, p. 61 (Peking).

Three females, Eastern Tombs, Chihli, December 10 and 18.

95. *PTERORHINUS DAVIDI CONCOLOR* (Stresemann)

Janthocincla davidi concolor STRESEMANN, Journ. für Orn., 1923, p. 365 (Sungpan, N. Szechwan).

Three males, 15 and 45 miles northwest of Ninghsia (Holanshan Mountains), May 13 and 14; four males, 90 and 120 miles south of Lanchow, Kansu, July 28, August 9, and September 1.

The United States National Museum has recently acquired a good series of poor skins from Sungpan, Szechwan, the type locality of the form. They seem to have shorter and straighter bills than the Kansu birds, but apparently do not differ in color. Chihli birds are darker than those from Kansu. Since the above was written, Stresemann has named a race from Lanhukou, Kansu, *Janthocincla davidi funebris*,¹⁶ and Bangs and Peters have described *Janthocincla davidi experrecta* from the Richthofen range.¹⁷

96. **TROCHALOPTERON ELLIOTH PRJEVALSKII** Menzbier

Trochalopteron prjevalskii MENZBIER, Ibis, 1887, p. 300 (Kansu Mountains).

Three males and 3 females, 120 miles south of Lanchow, July 30–August 16; 1 young male not long from the nest, 10 miles further south, September 13, and 1 female, 20 miles further south, September 10; 1 male, 15 miles northwest of Sining, Kansu, August 8.

This is a desert mountain form of *Trochalopteron elliotii*, much lighter in color with little or no white edgings to the feathers of the throat or black terminal or subterminal bars on the mantle. A certain number of *T. e. elliotii* have the central rectrices gray, aniline yellow only on the outer webs at the base, while two specimens of *T. e. prjevalskii* in the above series have the central rectrices yellow, so this supposed character for separating the two races does not hold.

In some of the August specimens of *prjevalskii*, the foreheads and pileum have bleached out to a pale drab gray, almost white. While this also happens with the more southern form to some extent, it is not near so pronounced, which was to be expected.

97. **IANTHOCINCLA MAXIMA** (Verreaux)

Pterorhinus maximus VERREAUX, Nouv. Arch. Mus. Paris, vol. 6, Bull., 1870, p. 36, pl. 3, fig. 1 (Mts. of Chinese Tibet).

One male, 120 miles south of, August 14, and 1 male and 2 females, 140 miles south of Lanchow, September 10; 1 male, Choni, Kansu, August 22.

The United States National Museum contains a large series of this species from further south, mostly from northern Yunnan. The southern birds appear to be somewhat darker and have a longer wing than those from Kansu. The three Kansu males have a wing 136–143; four males from Yunnan, 143–150 mm.

Family **TURDIDAE**

THRUSHES

98. **TURDUS NAUMANNI** Temminck

Turdus naumanni TEMMINCK, Man. d'Orn., vol. 1, 1820, p. 170 ("Les parties orientales; se montre en Silésie et en Autriche; plus commun en Hongrie").

Six males and four females, Eastern Tombs, Chihli, December 9–25.

¹⁶ Orn. Monatsbr., 1927, p. 134.

¹⁷ Bull. Mus. Comp. Zool., vol. 68, 1928, p. 339.

99. *TURDUS EUNOMUS* Temminck

Turdus eunomus TEMMINCK, Pl. Col., liv. 87, 1831, pl. 514 (Japan).

Two males, 45 miles north-west of Ninghsia, Kansu, May 22 and 26.

Both specimens have little rusty in the wings. The specimen taken on the 26th has the tail pattern, the back, and rusty spots on the sides and flanks much like *naumanni*. It is probably a hybrid.

100. *TURDUS RUFICOLLIS* Pallas

Turdus ruficollis PALLAS, Reis. Russ. Reichs, vol. 3, 1776, p. 694 (Dauria).

One female, Paotow, Inner Mongolia, March 22; 2 males, 2 females, and 1 unsexed, 45 miles northwest of Ninghsia, Kansu, May 4-7.

One male and one female included in the above collected May 4 I take to be hybrids between *Turdus ruficollis* and *eunomus*. The one marked female is like *ruficollis*, but the red area of the throat and chest is replaced by fuscous black; chin pinkish buff; feathers of throat edged with pinkish buff; the chest feathers edged with pale smoke gray. The one marked male has the chin and throat pinkish buff with two blackish rictal stripes; the chest feathers mikado brown with large brownish black centers and fringed with pinkish buff.

Rothschild¹⁸ reports hybrids between *Turdus eunomus* and *naumanni*. Where the ranges of these closely related species meet, crossing apparently is not uncommon.

101. *TURDUS GOULDII* (Verreaux)

Merula gouldii VERREAUX, Nouv. Arch. Mus. d'Hist. Nat., vol. 6, Bull., 1870, p. 34 (Chinese Tibet).

Four adult males, two adult females, and two immatures, 120 miles south of Lanchow, Kansu, July 26-August 15.

I can not see that this bird is only a form of *castaneus*. They are too distinct in coloration, and if the ranges are given correctly in the manuals do not meet at any point.

102. *TURDUS OBSCURUS* Gmelin

Turdus obscurus GMELIN, Sys. Nat., vol. 1, pt. 2, 1789, p. 816 (Lake Baikal).

One female, 45 miles northwest of Ninghsia, May 22.

103. *OREOCINCLA AUREA AUREA* (Holandre)

Turdus aureus HOLLANDRE, Annuaire de la Moselle, 1825, p. 60 (Metz).

Two females, 45 miles northwest Ninghsia, Kansu, May 7 and 21.

¹⁸ Nov. Zool., vol. 30, 1923, pp. 43, 255.

104. *MONTICOLA SAXATILIS* (Linnaeus)

Turdus saxatilis LINNAEUS, Sys. Nat., ed. 12, 1766, p. 294 ("Helvetiae, Austriae, Borussiae montibus").

One male, 30 miles northwest of Ninghsia, Kansu, May 27.

There is only one adult male from Europe (Italy) available for comparison. It is darker above and on the breast than the Kansu bird; there is little, if any, difference in size.

105. *CHAIMARRORNIS LEUCOCEPHALA* (Vigors)

Phoenicura leucocephala VIGORS, Proc. Zool. Soc. London, 1831, p. 35 (Himalaya).

A good series from Kansu (from 15 miles east-southeast to 140 miles south of Lanchow, July 12–September 3; 30 to 40 miles west of Sining, August 12–17).

In the series there are a number of young and immature; three young (taken August 17, 20, and September 3) have short, stumpy tails and could not have left the nest very long. Strange to say they are remarkably like the adult, except the breast is black and the abdomen only tinged with cinnamon-rufous and apparently lack the spotted plumage of other members of the family. The rufous breast is assumed at the first winter plumage.

106. *RHYACORNIS FULIGINOSA FULIGINOSA* (Vigors)

Phoenicura fuliginosa VIGORS, Proc. Zool. Soc. London, 1831, p. 35 (Himalaya).

Two males and one female, 120 miles south of Lanchow, Kansu, July 21–August 11.

These specimens are in worn plumage; they, along with a specimen from Tai-pai-shan District, Shensi, are duskier than a series from Yunnan. Two males from Fukien are much lighter and probably belong to *Rhyacornis fuliginosa tenuirostris*.¹⁹

107. *PHOENICURUS OCHRURUS RUFIVENTRIS* (Vieillot)

Oenanthe rufiventris VIEILLOT, Nouv. Dict. d'Hist. Nat., vol. 21, 1818, p. 431 (Bengal).

Four males and a young in the spotted plumage, Kansu (15 and 30 miles northwest of Ninghsia, Holanshan Mountains, May 12–17; Lanchow, July 6; and 100 miles southwest of Lanchow, August 30).

The male, taken August 30, is a bird of the year and is molting into the first winter plumage which is apparently going to be identical with that of the adult. The spotted young was taken July 6.

¹⁹ *Chimarrornis fuliginosa tenuirostris* Stresemann, Journ. für Orn., 1923, p. 364 (Siuhang, Kwangtung).

108. *PHOENICURUS AUROREUS AUROREUS* (Pallas)

Motacilla aurorea PALLAS, Reise Russ. Reichs, vol. 3, 1776, p. 695 (Salenka, Lake Baikal).

A good series from Kansu (30 to 60 miles northwest of Ninghsia, April 30–May 27; 15 to 140 miles south of Lanchow, July 23–September 20).

109. *PHOENICURUS HODGSONI* (Moore)

Ruticilla hodgsoni MOORE, Proc. Zool. Soc. London, 1854, p. 26, pl. 58 (Nepal).

Three males, Kansu (15 miles east-southeast, July 12; 40 miles south, September 19; and 120 miles south of Lanchow, August 6)

110. *PHOENICURUS SCHISTICEPS* (Gray)

Ruticilla schisticeps GRAY, Cat. Mam. Bds. Nepal Coll. Hodgson, 1846, pp. 69, 153 (Nepal).

One adult and one young male in the spotted plumage, 100 and 140 miles south of Lanchow, Kansu, August 22 and 30.

Stresemann²⁰ has named *Phoenicurus schisticeps beicki* from Lanhoukou, Kansu. Bangs and Peters²¹ discredit the form. No specimens from Nepal are available for comparison, but three males from Mili, southwest Szechwan and one from northern Yunnan compared with a series of seven males from Sungpan, northern Szechwan and the single male Kansu specimen support their remarks. The wings in four males from southwest Szechwan and northern Yunnan, measure: 81.5–85 (83.9); while the wings in the seven Sungpan and one Kansu male measure 81.5–86.5 (84.2).

111. *PHOENICURUS ALASCHANICA* (Przewalski)

Ruticilla alaschanica PRZEWALSKI, Mongol i Strana Tangut, vol. 2, 1876, p. 40, pl. 9, fig. 2 (Alaschan); Rowley's Orn. Miscel., vol. 2, 1877, p. 175, pl. 14, fig. 2.

Four males and one female, 15 miles northwest of Ninghsia (Holanshan Mountains), Kansu, May 12–15.

112. *CYANOSYLVIA SUECICA PALLIDOGULARIS* (Sarudny)

Cyanecula suecica pallidogularis SARUDNY, Mat. z. Kennt. d. Fauna und Flora Russ. Reichs, Zool., vol. 3, 1897, pp. 171, 312 (Orenburg).

One male, 45 miles northwest of Ninghsia, Kansu, May 18.

This is paler than a male from the Altai that has been referred to *C. s. discessa*, but I agree with S. Baker²² that the latter is not distinct enough to warrant recognition by name.

²⁰ Ornith. Monatsb., 1927, p. 134.

²¹ Bull. Mus. Comp. Zool., vol. 68, p. 352.

²² Fauna Br. India, Birds, ed. 2, vol. 2, 1924, p. 85.

113. *CALLIOPE CALLIOPE CALLIOPE* (Pallas)

Motacilla calliope PALLAS, Reise Russ. Reichs, vol. 3, 1776, p. 697, (Jenisea usque ad Lenam).

Two males, 45 miles northwest of Ninghsia, Kansu, May 21 and 26.

These belong to the small western form; farther east in Kamchatka occurs a larger form that winters in the Philippines, *Calliope calliope camtschatkensis* (Gmelin).

114. *HODGSONIUS PHOENICUROIDES ICHANGENSIS* Baker

Hodgsonius phoenicuroides ichangensis BAKER, Bull. Br. Orn. Club, vol. 43, 1922, p. 18 (Ichang, Hupeh).

A young male in the spotted plumage with a short stubby tail, not long from the nest, 90 miles southwest of Lanchow, Kansu, September 1.

115. *SAXICOLA TORQUATA PRZEWALSKII* (Pleske)

Pratincola maura var. *przewalskii* PLESKE, Wiss. Res. Przewalsky's Reisen, Vögel, vol. 1, 1889, p. 46, pl. 4, figs. 1, 2, 3 (Kansu).

One female, 140 miles south of Lanchow, Kansu, September 11.

116. *OENANTHE LEUCOMELA LEUCOMELA* (Pallas)

Motacilla leucomela PALLAS NOV. Comm. Petr., vol. 14, 1771, p. 584, pl. 22 (Lower Volga).

One male, 15 miles northwest of Ninghsia (Holanshan Mountains), Kansu, May 12; one female, 157 miles northwest of Paotow, Inner Mongolia, April 3.

117. *OENANTHE DESERTI ATROGULARIS* (Blyth)

Saxicola atrogularis BLYTH, Journ. As. Soc. Bengal, 1847, p. 131 (Upper provinces, Scinde, etc.).

One male and two females, Inner Mongolia (70 miles northwest, March 31, and 157 miles west-northwest of Paotow, April 7 and 8); two males, Kansu (100 and 105 miles northwest of Ninghsia, April 24 and 25).

The male taken April 25 lacks the white rump and upper-tail coverts. Upon careful examination the latter seem to be entirely lacking; as some fresh new white feathers, concealed by the longer old ones, are coming in around the base of the tail, the character of the breeding plumage will probably be assumed later. The specimen does not differ from the other two males otherwise, except the tail is somewhat shorter.

118. *OENANTHE ISABELLINA* (Temminck)

Saxicola isabellina TEMMINCK, Pl. Col., livr. 79, 1829, pl. 472, fig. 1 (Nubia).

One young male not long from the nest, 45 miles northwest of Ninghsia, Kansu, May 22.

119. *PRUNELLA FULVESCENS MONGOLICA* Sushkin

Prunella fulvescens mongolica SUSHKIN, Proc. Boston Soc. Nat. Hist., vol. 38, No. 1, 1925, p. 52 (Kobdo, N. W. Mongolia).

One female, 157 miles west-northwest of Paotow, Inner Mongolia, April 8.

This may not be true *mongolica*. It is darker above than a female specimen from the Tian Shan Mountains, north of Kashgar, taken September 13 (*P. f. juldrussica*).

120. *PRUNELLA FULVESCENS NANSHANICA* Sushkin

Prunella fulvescens nanshanica SUSHKIN, Proc. Boston Soc. Nat. Hist., vol. 38, No. 1, 1925, p. 51 (Kwei-Te-ting or Gui-dui).

Four males, 15 miles northwest of Ninghsia (Holanshan Mountains), Kansu, May 12.

This series is paler above and below than the specimen identified above as *P. f. mongolica*. It is quite possible that the above specimens do not belong to this form at all. They are much lighter, both above and below than *Prunella fulvescens nadiæ* Bangs and Peters²³ from Choni, S. W. Kansu. The dark stripes on the back are narrower and lighter in color. They are in a more worn and bleached condition, but this will not account for some of the differences. The Holanshan chain seems to be more or less the eastern terminus of the Nanshan system. A desert or semidesert intervenes between the ranges of *nadiæ* and the present form.

Family SYLVIIDAE

WARBLERS

121. *SYLVIA CURRUCA AFFINIS* Blyth

Sylvia affinis BLYTH, Journ. As. Soc. Bengal, vol. 14, 1845, p. 564 (India).

One male, 45 miles northwest of Ninghsia, Kansu, May 6.

122. *RHOPOPHILUS PEKINENSIS* (Swinhoe)

Drymoeca pekinensis SWINHOE, Ibis, 1868, p. 62 (Pekin).

One male, 120 miles west of Paotow, Inner Mongolia, October 22.

This is so very different from *Rhopophilus albosuperciliaris* (Hume) that it is difficult to believe they represent forms of a single species.

123. *PHAEORHADINA FUSCATA FUSCATA* (Blyth)

Phylloperuste fuscata BLYTH, Journ. As. Soc. Bengal, vol. 11, 1842, p. 113 (Calcutta).

Two males, 45 miles northwest of Ninghsia, Kansu, May 19-20.

²³ Bull. Mus. Comp. Zool., vol. 68, 1928, p. 355.

124. *REGULOIDES PROREGULUS PROREGULUS* (Pallas)

Motacilla proregulus PALLAS, Zoogr. Rosso-Asiat., vol. 1, 1811 (1827), p. 499 (Ingoda River, Dauria).

One male, 45 miles northwest of Ninghsia, Kansu, May 20.

Family MUSCICAPIDAE

FLYCATCHERS

125. *SIPHIA PARVA ALBICILLA* (Pallas)

Muscicapa albicilla PALLAS, Zoogr. Ross.-Asiat., vol. 1, 1827, p. 462 (Dauria).

Three males and one female, Kansu (45 miles northwest of Ninghsia, May 22-27; 100 miles south of Lanchow, September 15).

Family MOTACILLIDAE

WAG-TAILS AND PIPITS

126. *MOTACILLA ALBA OCULARIS* Swinhoe

Motacilla ocularis SWINHOE, Ibis, 1860, p. 55 (Amoy, China).

One male, 45 miles northwest of Ninghsia, Kansu, May 8.

127. *MOTACILLA ALBA LEUCOPSIS* Gould

Motacilla leucopsis GOULD, Proc. Zool. Soc. London, 1837, p. 78 (India).

One female, 45 miles northwest of Ninghsia, May 4; two males and one female 15 miles northwest of Ninghsia (Holanshan Mountains), May 12-13; one female and one male, 120 miles south of Lanchow, July 21 and September 6; one female, 100 miles southwest of Lanchow, (10 miles southeast of Labrang), August 31; one male, 20 miles west of Sining, Kansu, August 18.

This seems to be the resident breeding form.

128. *MOTACILLA ALBA BAICALENSIS* Swinhoe

Motacilla baicalensis SWINHOE, Proc. Zool. Soc. London, 1871, p. 363 (Eastern Asia).

One male, 70 miles northwest, March 31, and one male and one female, 157 miles north-northwest of Paotow, Inner Mongolia, April 3 and 9.

This form is larger, has the jugular black patch larger, and less white on the wing coverts than *M. a. leucopsis*. The present form has the back gray in the breeding plumage, while in *M. a. leucopsis* it is black. In winter the two forms are much alike, however, and rather difficult to separate.

129. *MOTACILLA CINEREA CASPICA* (S. G. Gmelin)

Parus caspicus S. G. GMELIN, Reise durch Russland, vol. 3, 1774, p. 104, pl. 20, fig. 2 (Engeli, Caspian Sea).

Two males and one female, 45 miles northwest of Ninghsia, May 7-26.

130. *BUDYTES THUNBERGI*, subspecies?

Motacilla thunbergi BILLBERG, Syn. Fauna Scand., vol. 1, pt. 2, Aves, 1828, p. 50 (Lapland).

One male, Lanchow, Kansu, June 24.

The above specimen is brighter yellow below, less greenish above, and lacks the dusky streaks on the jugulum of *B. t. pleurus*. It probably belongs to the form left unnamed by Doctor Sushkin,²⁴ but I do not care to name it from a single specimen and the material at hand at present.

It seems to me *Budytes thunbergi* is specifically distinct from *Budytes flavus*, and that *Budytes flavus pleurus* Thayer and Bangs and *Budytes flavus alascensis* Ridgway are really forms of *thunbergi*; such an arrangement would certainly show their relationship better.

131. *BUDYTES CITREOLA CITREOLA* (Pallas)

Motacilla citreola PALLAS, Reise Prov. Russ. Reichs, vol. 3, 1776, p. 606 (Eastern Siberia).

Four males and one female, 45 miles northwest of Ninghsia, Kansu, May 7-27.

132. *ANTHUS SPINOLETTA BLAKISTONI* Swinhoe

Anthus blakistoni SWINHOE, Proc. Zool. Soc. London, 1863, p. 90 (Yangtze River, 150 miles inland).

One male, 100 miles south of Lanchow, Kansu, September 15.

133. *ANTHUS ROSEATUS* Blyth

Anthus roseatus BLYTH, Journ. Asiat. Soc. Bengal, vol. 16, 1847, p. 437 (Nepal).

Two males, 60 and 15 miles northwest of Ninghsia, Kansu, April 30 and May 15.

The specimen taken April 30 is very deeply colored. The fore-neck and chest vinaceous-buff; the outer margins of the primaries and upper parts with a warbler green wash. These tints seem to fade rather rapidly.

134. *ANTHUS HODGSONI BEREZOWSKII* Zarudny

Anthus maculatus berezowskii ZARUDNY, Orn. Monatsb., vol. 18, 1909, p. 41 (S. W. Kansu).

Two females, 45 miles northwest of Ninghsia, Kansu, May 8-22. These two skins are very light colored with the back sparsely

²⁴ Proc. Boston Soc. Nat. Hist., vol. 38, no. 1, 1925, p. 37.

streaked. Birds from the high mountains of Yunnan are more heavily streaked on the upper parts; this form has been named *Anthus maculatus yunnanensis* by Uchida and Kuroda.²⁵ Dr. C. W. Richmond²⁶ renamed *Anthus maculatus* Hodgson, *nomen nudum*, *Pipastes maculatus* Jerdon, not *Motacilla maculata* Gmelin, *Anthus hodgsoni*. This would make the type locality of the latter Nepal and probably Uchida and Kuroda's form is a synonym of it. The only safe course for the present is to use a name of undoubted applicability.

135. ANTHUS RICHARDI RICHARDI Vieillot

Anthus richardi VIEILLOT, Nouv. Dict. d'Hist. Nat., vol. 26, 1818, p. 491 (France).

Four males and one unsexed, 45 miles northwest of Ninghsia, May 7-19; one male, 30 miles east-southeast of Lanchow, July 16; one female, 100 miles southwest of Lanchow, Kansu, August 31.

The August specimen is a bird of the year with some immature plumage on the back. I have no specimens of *A. r. striolatus* for comparison and most of my *richardi* are birds taken on migration. In size they seem to agree with specimens from east China.

Family BOMBYCILLIDAE

WAXWINGS

136. BOMBYCILLA GARRULA CENTRALASIAE Poljakow

Bombycilla garrulus centralasiae POLJAKOW, Messr. Orn., vol. 6, 1915, p. 137 (Zaissan Dist., Altai).

A large series, Eastern Tombs, Chihli, November 16-January 3.

The above series when compared with a small number of European specimens is much lighter and grayer, both above and below, but especially above.

Family LANIIDAE

SHRIKES

137. LANIUS SPHENOCERCUS SPHENOCERCUS Cabanis

Lanius sphenocercus CABANIS, Journ. für Orn., 1873, p. 76 (Canton).

One female, 25 miles south-southwest of Ninghsia, June 6; one male, 15 miles south of Ninghsia, Kansu, October 14.

138. LANIUS TEPHRONOTUS Vigors

Lanius tephronotus VIGORS, Proc. Zool. Soc. London, 1831, p. 43 (Himalaya).

One male, 15 miles northwest of Ninghsia, May 16; 5 males, 15 miles east-southeast of Lanchow, July 10-11; 3 males, 1 female,

²⁵ Annot. Zool. Jap., vol. 9, 1916, 134.

²⁶ Research in China, Carnegie Inst., vol. 1, pt. 2, 1907, p. 493.

and 2 immature males, 120 miles south of Lanchow, July 22–August 15; 1 immature female, 10 miles northeast of Sining, Kansu, August 4.

These have been compared with a large series from northern Yunnan. They are lighter above, the black mask on the forehead is not so broad, the rusty of the rump is not so extensive, and there are other slight differences. They appear also to be somewhat smaller.

This is considerably north of the range given by Hartert.²⁷

139. *LANIUS CRISTATUS ISABELLINUS* Hemprich and Ehrenberg

Lanius isabellinus HEMPRICH and EHRENBURG, Symb. Phys., 1828 (1833), fol. e. (Gumfuda, Arabia).

Two males and 2 immature females, 30–45 miles west of Ninghsia; 1 immature female, 120 miles south of Lanchow, Kansu, July 22.

The immature from Lanchow is too young for correct determination; it is rather dark and may not belong here at all.

Family STURNIDAE

STARLINGS

140. *SPODIOPSAR CINERACEUS* (Temminck)

Sturnus cineraceus TEMMINCK, Pl. Col., liv. 94, 1835, pl. 556 (Japan).

Five males and 4 females, Lanchow, Kansu, June 24–September 21.

141. *AGROPSAR STURNINUS* (Pallas)

Gracula sturnina PALLAS, Reise Russ. Reichs, vol. 3, 1776, p. 695 (south Dauria).

Four males and one female, Lanchow, Kansu, June 26 and July 7.

Family FRINGILLIDAE

SPARROWS

142. *CHLORIS SINICA SINICA* (Linnaeus)

Fringilla sinica LINNAEUS, Sys. Nat., ed. 12, vol. 1, 1766, p. 321 (China).

Ten males from Kansu (Lanchow, July 4; 15 and 30 miles east-southeast of Lanchow, July 10 and 14; 120 miles (July 26–August 10) and 180 miles south of Lanchow, September 1).

While the above series is very satisfactory, there is no comparable material available from south China taken at the same season. A series taken mostly in fall and winter with a few summer birds

²⁷ Vögel paläarkt. Fauna, vol. 1, pt. 4, 1907, 451.

from southern Szechwan average a little smaller; the differences are slight and grade into one another. The few summer specimens that I have seen from the south appear to be more richly colored than the Kansu birds.

The measurements given by Jacobi²⁸ for his *Chloris sinica tschiliensis* are no greater than those of this Kansu series and only average slightly greater than the series from south China. Of *Chloris sinica ussuriensis* Hartert, I have examined only two adult males and one female; they are slightly larger than Kansu birds, but the difference is not great.

143. MYCEROBAS CARNIPES (Hodgson)

Coccythraustes carnipes HODGSON, Asiatic Researches, vol. 19, 1836, p. 151 (Nepal).

One male and one female, 15 miles northwest of Ninghsia (Holan-shan Mountains), Kansu, May 16.

Four males from southwest Szechwan and northern Yunnan are a deeper black when compared with the above male; the Kansu female is a lighter gray than females from Yunnan and southwest Szechwan. Perhaps the northern bird represents another form, but for the present I do not care to separate it.

144. FRINGILLA MONTIFRINGILLA Linnaeus

Fringilla montifringilla LINNAEUS, Sys. Nat., ed. 10, 1758, p. 179 (Europa, *i. e.* Sweden).

Two females, Eastern Tombs, Chihli, December 8 and January 4.

145. SPINUS SPINUS (Linnaeus)

Fringilla spinus LINNAEUS, Sys. Nat., ed. 10, 1758, p. 181 (Sweden).

One female, Eastern Tombs, Chihli, December 10.

The above specimen has a deformed bill; the lower mandible much longer than the upper.

146. ACANTHIS FLAVIROSTRIS MINIAKENSIS Jacobi

Acanthis flavirostris miniakensis JACOBI, Abh. und Ber. Mus. Dresden, vol. 16, No. 1, 1923, p. 25 (Tschuwo, Bameh; Dawo).

One marked male but probably a female, 105 miles south-southwest of Lanchow, Kansu, September 2.

This specimen has been assigned to this form on geographic ground. It is immature; an adult female in worn plumage from Ngan Yang Ba (near Tatsienlu), July 19, is much darker above and below and more heavily streaked.

²⁸Abh. u. Ber. Zool. Mus. Dresden, vol. 16, No. 1, 1923, p. 25.

147. *PYRGILAUDA RUFICOLLIS* (Blanford)

Montifringilla ruficollis BLANFORD, Proc. Asiat. Soc. Bengal, 1871, p. 227 (Kangra Lama Pass, north Sikkim).

One male, 40 miles west of Sining, Kansu, August 15.

This bird has quite a remarkable bill. The base of the upper mandible is swollen around the nostrils, which are exposed and open upward; between the nostrils the culmen is raised for a short distance basally into a sort of knob or short ridge.

148. *RHODOSPIZA OBSOLETA* (Lichtenstein)

Fringilla obsoleta LICHTENSTEIN, in Eversmann's Reise, Anhang, 1823, p. 132 (Buchara).

Two females, 70 miles northwest of Paotow, Inner Mongolia, March 31.

A small series (four males and one female) from east Turkestan, taken in August and November, are browner above and lighter below than the above specimens. This difference is probably seasonal, as the August bird still retains some of the browner summer plumage below.

149. *ERYTHROSPIZA MONGOLICA* (Swinhoe)

Carpodacus mongolicus SWINHAE, Proc. Zool. Soc., 1870, p. 447 (Nankow Pass).

Two males, Paotow, Inner Mongolia, March 18; 1 male and 2 females, 70 miles northwest of Ninghsia April 29, and 1 immature female Lanchow, Kansu, July 9.

A small series in the United States National Museum from Kashmir (1 male and 1 female) and east Turkestan (Tian Shan Mountains, north of Kashgar, 2 males and 3 females), taken in November and September, are less suffused with pinkish below and on the wings and seem to lack the whitish mark on the outer web of the inner secondaries that is such a prominent feature in the above series. Whether these differences are seasonal or not I am not prepared to say.

150. *PASSER MONTANUS OBSCURATUS* Jacobi

Passer montanus obscuratus JACOBI, Abh. und Ber. Mus. Dresden, vol. 16, No. 1, 1923, p. 32 (Prov. Hupeh and Szetschwan).

Four males and two females, Paotow, Inner Mongolia, March 20; two females, 30 miles northwest of Paotow, March 29.

This series does not seem to differ from Hupeh and Szechwan birds. One of the females taken, March 29, is a partial albino.

151. *PASSER AMMODENDRI STOLICZKAE* Hume

Passer stoliczkae HUME, Stray Feathers, vol. 2, 1874, p. 516, (Yarkand, Kaschgar).

One male, 60 miles northwest of Ninghsia, Kansu, April 30.

152. *CARPODACUS ERYTHRINUS ROSEATUS* (Hodgson)

Pyrrhuloxia roseata HODGSON, Proc. Zool. Soc. London, 1845, p. 36 (Nepal).

One male and 1 female, 15 miles south of Ninghsia (Holanshan Mountains), May 16 and 18; 5 males and 1 female, 120 miles south of Lanchow, Kansu, July 20–August 10.

153. *CARPODACUS ROSEUS* (Pallas)

Fringilla rosea PALLAS, Reise Prov. d. Russ. Reichs, vol. 3, 1776, p. 69 (Udam et Selengam).

Seven males (adults and immature), Eastern Tombs, December 11–January 8.

154. *CARPODACUS THURA DUBIUS* Przewalski

Carpodacus dubius PRZEWALSKI, Mongol i Strana Tangut, vol. 2, 1876, p. 92, pl. 13 (Alashan Mountains and Kansu); Rowley's Orn. Miscell., vol. 2, 1877, p. 301, pl. 53.

One male, 15 miles northwest of Ninghsia (Holanshan Mountains), May 15; two males, 140 miles south of Lanchow, Kansu, August 24 and September 11.

The two latter specimens have the colors of the lower parts intensified; the September specimen being Corinthian red, even deeper on sides of neck. This deepening of color is probably due to wear.

155. *CARPODACUS ARGYROPHRYS* Berlioz

Carpodacus argyrophrys BERLIOZ, Bull. Mus. Paris, ser. 2, vol. 1, No. 2, February, 1929, p. 131 (new name for *Carpodacus davidianus* authors not Milne-Edwards).

Five males, 15 miles northwest of Ninghsia (Holanshan Mountains), May 12–18; one male, 55 miles northwest of Ninghsia, Kansu, May 1.

This series of six males measures: Wing, 76, 78.5, 79, 79, 80, 80; culmen, 11–11.5. *Carpodacus pulcherrimus* and *C. argyrophrys* are extremely hard to differentiate and have been confused by most authors. Rothschild²⁹ called attention to certain differences and recognized them as forms of the same species. Bangs and Peters,³⁰ the latest authors to deal with these birds, recognize the two as distinct species, because they find them occurring together in parts of their range. They give characters separating the two birds, in which size is mentioned first. Now taking the series of males in the United States National Museum of *pulcherrimus* and *argyrophrys* and separating them on this character, using the Kansu series above as a criterion, we get the following result: 3, Sungpan, Szechwan, July 22–24, wing, 81–84; 2, near Tatsienlu, Szechwan, July 14–18, wings

²⁹ Nov. Zool., vol. 33, 1926, p. 330.

³⁰ Bull. Comp. Zool., vol. 68, 1928, p. 374.

of both, 84; 1, Likiang Mountains, Yunnan, April 17, wing, 86. All the above are assigned to *Carpodacus argyrophrys*. To *Carpodacus pulcherrimus* are assigned the following: 5 Sungpan, Szechwan, July 13–August 2, wing, 70.5–77; 3, near Tatsienlu, Szechwan, July 13–August 3, wing, 74–75; 1 male, Cheto, Szechwan, July 25, wing, 72.5. Besides the greater size of *C. argyrophrys*, the series separated above on size as of this species differs from those assigned to *C. pulcherrimus* in being more silvery pink, not so reddish below, especially on the throat and superciliary and the upper parts somewhat lighter. All the specimens assigned to *C. pulcherrimus* above have the wing not over 75, except one that goes to 77. This one is assigned here on color. The specimens assigned to *C. argyrophrys* have a wing length of 76 (one) to 86; the bills also seem to be longer and heavier. If it were not for the fact that these two birds occur together over parts of their range in the breeding season, they would certainly only be regarded as closely related forms of a single species.

156. *LOXIA CURVIROSTRA ALBIVENTRIS* Swinhoe

Loxia albiventris SWINHOE, Proc. Zool. Soc. London, 1870, p. 437 (Peking).

One male and one female, Eastern Tombs, Chihli, December 27–28.

157. *PYRRHULA ERYTHACA TAIPAISHANENSIS* Rothschild

Pyrrhula erythaca taipaishanensis ROTHSCHILD, Nov. Zool., vol. 28, 1921, p. 63 (Mt. Tai-pai-shan, Tsin-ling Mts.).

One male and one female, 120 miles south of Lanchow, Kansu, July 26, and August 13.

I have previously commented on the difference between the present race and *Pyrrhula erythaca wilderi*.³¹

While the female of the present form is considerably lighter than the same sex of *Pyrrhula erythaca altera* from Yunnan, the male is remarkably similar, only differing in size, being slightly smaller.

158. *EMBERIZA SCHOENICLUS PALLIDIOR* Hartert

Emberiza schoeniclus pallidior HARTERT, Vögel paläarkt. Fauna, vol. 1, pt. 2, 1904, p. 197 (Aiderli, Turkestan).

One male, 10 miles northwest of Paotow, Inner Mongolia, March 27.

This is in a lightly streaked, light colored, winter plumage. I am not sure it belongs to this form as there are no specimens at hand in the same stage of plumage for comparison. In the pattern of the tail it agrees with the species and I am placing it here on geographic grounds.

³¹ Proc. U. S. Nat. Mus., vol. 70, art. 5, 1926, p. 58.

159. *EMBERIZA PALLASI PALLASI* (Cabanis)

Cynchramus pallasi CABANIS, Mus. Hein., vol. 1, 1851, p. 130 (based on *Emberiza schoeniclus* B. PALLAS, Zoogr.; Transbaikalia, Selenga River).

Four males, 157 miles west-northwest of Paotow, Inner Mongolia, April 10 and 11; one male, Eastern Tombs, Chihli, January 4.

Doctor Sushkin³² has recently divided this species into three races, but the material at my command will not permit me to go into the matter. Three of the Paotow males have broad white nuchal bands; much more so than a breeding male from the Kolyma in worn plumage; the white mark on the second outer tail feather in the latter is much smaller also, and it is very doubtful if they belong to the same form.

160. *EMBERIZA RUSTICA* Pallas

Emberiza rustica PALLAS, Reise Russ. Reichs, vol. 3, 1776, p. 698 ("In salicetis Dauriae").

One male and two females, Eastern Tombs, Chihli, December 12–January 1.

161. *EMBERIZA ELEGANS TICEHURSTI* Sushkin

Emberiza elegans ticehursti SUSHKIN, Bull. Brit. Orn. Club, vol. 47, 1926, p. 35 (new name for *Emberiza elegans sibirica* Sushkin not *Emberiza sibirica* Gmelin; Sidemi).

One male, Eastern Tombs, Chihli, December 17.

162. *EMBERIZA GODLEWSKII BANGSI* Sushkin

Emberiza godlewskii bangsi SUSHKIN, Proc. Boston Soc. Nat. Hist., vol. 38, No. 1, 1925, p. 27 (Pashui, Shansi, China).

Six males from Kansu: 15 miles northwest of Ninghsia (Holan-shan Mountains), May 12–17; 45 miles northwest of Ninghsia, May 5; 30 miles east-southeast of Lanchow, July 16.

This is a larger and lighter-colored form than *Emberiza godlewskii omissa*. A male in the United States National Museum (No. 150326) from Tangitar, east Turkestan, June 12, is even lighter and has the white on the two outer tail feathers more extensive than the Kansu bird, and evidently represents *Emberiza g. decolorata* Sushkin. It is slightly larger, but this might not hold in a series. The Kansu specimens are probably not typical of the race, but intergrades toward *Emberiza g. nanshanica*.

163. *EMBERIZA GODLEWSKII NANSHANICA* Sushkin

Emberiza godlewskii nanshanica SUSHKIN, Proc. Boston Soc. Nat. Hist., vol. 38, No. 1, 1925, p. 24 (Churmyk River, Tibet).

Four males and two females, Kansu (120 miles south of Lanchow, July 24–August 12; and 100 miles southwest of Lanchow, August 31).

³² Proc. Boston Soc. Nat. Hist., vol. 38, No. 1, 1925, pp. 20–22.

Two of the males (304993, 304990) are as large as the same sex in the series of *Emberiza g. bangsi* from Kansu, but are much darker in color and are probably only unusually large specimens. The characters of the two forms seem to run into one another and must intergrade somewhere in the vicinity.

164. *EMBERIZA GODLEWSKII OMISSA* Rothschild

Emberiza cia omissa ROTHSCHILD, Nov. Zool., vol. 28, 1921, p. 60 (Si Taipaishan, Tsin-ling Mountains).

One male, Eastern Tombs, Chihli, January 2.

This specimen is smaller and darker than the specimens identified as *E. g. bangsi*.

165. *EMBERIZA CIOIDES WEIGOLDI* Jacobi

Emberiza cioides weigoldi JACOBI, Abh. und Ber. Mus. Dresden, vol. 16, No. 1, 1923, p. 36 (Peking, Chihli).

Two males and one female, Eastern Tombs, Chihli, December 18, January 4; one female, 30 miles northwest of Paotow, Inner Mongolia, March 29.

The latter specimen is lighter below than the Chihli birds.

Although the United States National Museum contains quite a series of this species from China, it has very few taken in the breeding season. What few I have been able to examine from south and north China seem to show that the present form is very poorly characterized, if worthy of recognition at all. I have been able to compare three males in breeding plumage from north Chihli with four males from south China (Kiangsu, Hunan, and Szechwan). Southern birds appear to be a trifle darker and a little smaller; the differences are slight, however.

166. *EMBERIZA LEUCOCEPHALA* S. G. Gmelin

Emberiza leucocephalos S. G. GMELIN, Nov. Comm. Acad. Sci. Imp. Petrop., vol. 15, 1771, p. 480, pl. 23, fig. 3 (Astrachan).

One male and one female, Eastern Tombs, Chihli, December 8 and 24.