A new subspecies of Spectacled Fulvetta
Alcippe ruficapilla from Vietnam

JONATHAN C. EAMES, CRAIG R. ROBSON and NGUYEN CU

A new subspecies of Spectacled Fulvetta Alcippe ruficapilla (Timaliini: Timaliidae), believed to be endemic to the Da Lat plateau in southern Vietnam is described. It is restricted to upper montane forest above 2,100 m elevation. The most distinctive characters are its general dullness and the absence of whitish-grey and blackish on the outer webs of the primaries.

INTRODUCTION

On 22 May 1991 the authors, together with Truong Van La, observed an unfamiliar fulvetta Alcippe, thought to belong to the group of species comprising Streak-throated A. cinereiceps and Spectacled A. ruficapilla. It was at 2,160 m elevation on Nui Bi Doup in Lam Dong Province, southwestern Vietnam. On 23 May this individual was again observed and later, a flock of at least four was seen on the summit at 2,289 m. One of the four individuals observed on the summit was mist-netted, and a series of biometrics was taken before it was released (Robson et al. 1993).

On 12 December 1993 whilst on a return visit, J.C.E. and N.C. observed six birds of the same form, on the summit of Nui Bi Doup, and on 13 December trapped nine individuals, of which a series of seven specimens was collected.

On 16 January 1994, above 2,200 m on Chu Yang Sin in neighbouring Duc Lac Province, J.C.E. observed three flocks of the same Alcippe, consisting of five, eight and three birds respectively. On 17 January, J.C.E. trapped and photographed two birds, on 26 January J.C.E. and N.C. observed and trapped a flock of six birds at 2,210 m, and took a series of biometrics before all the birds were released. The species was common along the summit ridge on 27 January and recorded common at the summit (2,442 m).

FORMAL DESCRIPTION

The birds seen and collected on Nui Bi Doup in 1991 and 1993, and observed on Chu Yang Sin in 1994 are of a previously undescribed taxon for which we propose the name
Alcippe ruficapilla bidoupensis ssp. nov.

Holotype
Institute for Ecology and Biological Resources, Hanoi, number BT 2341, adult female collected on Nui Bi Doup, Lam Dong Province, Vietnam (12° 05’N 108° 40’E), on 13 December 1993. Collectors J.C.E. and N.C. (Figure 1).

Diagnosis
A small, arboreal, flocks babblers assigned to Alcippe due to the presence of a short, only slightly decurved culmen; short-rounded wings; soft plumage; lateral crown-stripestes and an eye-ring. Plumage brown above and vinous buff and rufescent-brown below. The remiges are brown and have no blackish or whitish-grey edgings on the outer webs of the primaries (Figures 2 and 3).

Description of holotype
Forehead and crown greyish-brown with an olive tint. Narrow white supercilium extending from the lores behind the eye, where it becomes duller and buff-tinged; it also extends more narrowly over the base of the bill but is buffy and less conspicuous there. Lateral crown-stripestes blackish-brown extending and broadening from above eye to nape. Whitish eye-ring, broken by inconspicuous grey eye-stripe. Ear-coverts and cheeks vinous-pink or vinous-buff, lightly streaked with brown. Mantle, scapulars and upper wing-coverts, warm rufescent brown. Rump slightly more rufous than mantle. Chin and throat whitish becoming pale vinous-buff on upper breast, distinctly paler than ear-coverts. Streaking on throat and upper breast formed by brown shaft-streaks on feathers. Streaking becomes more distinct on upper breast. Belly whitish-buff, similar to throat, grading to ochre-buff or orange-buff on the vent and undertail-coverts. Flanks vinous-buff. Outer webs of remiges rufescent brown, intermediate in colour between mantle and rump. Rectrices dull blackish-brown on inner webs and rather more rufous-brown on outer webs. The bill of the freshly dead bird was flesh-horn, slightly paler at the tip and along the cutting edge. By July 1994 the upper and lower mandibles had become entirely dark-horn, except for a flesh base to the lower mandible. Tarsus and toes dark horn, the soles paler. Iris dark brown. Full biometrics are given in Table 1.

Paratypes
Six paratypes are designated, all collected by J.C.E. and N.C. at the same locality and on the same date as the holotype. Five of the paratypes are held at the Institute of Ecology and Biological Resources, Hanoi, the sixth is held at the Museum of Natural History, Tring, U.K.

Individual variation
Variation in soft part coloration and biometrics between the seven type specimens and six other individuals for which data are available are presented in Table 1. All of the 13 birds were believed to be adults. Although the sample of sexed individuals was small (n = 7), the available data indicate that males, on average, have a longer tarsus, wing and tail and are heavier than females.

RELATIONSHIPS AND RECOGNITION
Within the genus Alcippe, the species viniceps, striaticollis, ruficapilla, cinereiceps and ludowi are similar in size and general appearance, with brownish upperparts and a distinct pale flash or panel on the wing formed by pale grey or whitish on the outer webs of the primaries. Taxa assigned to A. ruficapilla are generally typified by having a brown, not black, bill; a dark iris; vinous-brown ear-coverts, throat and upper breast; and a distinct whitish eye-ring. The taxa assigned to A. cinereiceps, are typified by a black bill (except A. c. formosana); a pale iris; greyish to greyish-brown ear-coverts, throat and breast; and the absence of white around the eye and on the supercilium (except A. c. formosana). The morphological variation within the two species is summarised in Tables 2 and 3.

The other three species in the group differ in a number of features. A. viniceps has a broad white supercilium bordered above by a dark lateral crown-stripe; dark ear-coverts; and whitish throat and upper breast (marked with brown to warm brown streaks in some races). A. striaticollis has no obvious supercilium; dark brown lateral crown-stripestes; faint dark brown streaks on forehead and crown; buffish tinged mid-brown ear-coverts and pale underparts with conspicuous dark greyish-brown streaks on the throat and upper breast. A. ludowi has head (apart from throat) warm mid to dark brown; no supercilium; dark lateral crown-stripestes almost obsolete; throat and upper breast white with broad, warm dark brown streaks. A. ludowi was treated as conspecific with A. cinereiceps by Deignan (1964), apparently following Delacour (1946), although neither author gave any reasons for their treatment. However, in view of its very distinct morphological and biometrical characters treatment as a separate species is warranted. Additionally, it was recently found in the same locality as A. c. maniopurensis.
<table>
<thead>
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<th>Specimen no.</th>
<th>Date</th>
<th>Locality</th>
<th>Sex</th>
<th>Tarsus (mm)</th>
<th>Wing (mm)</th>
<th>Bill (mm)</th>
<th>Tail (mm)</th>
<th>Weight (g)</th>
<th>Iris</th>
<th>Leg</th>
<th>Bill</th>
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<td>Nui Bt Dowp</td>
<td>F</td>
<td>23.0</td>
<td>58.3</td>
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<td>Dark horn</td>
</tr>
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<td>13/12/93</td>
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<td>57.0</td>
<td>10.0</td>
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<td>Dark horn</td>
</tr>
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<td>13/12/93</td>
<td>Nui Bt Dowp</td>
<td>M</td>
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<td>58.5</td>
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<td>57.0</td>
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<td>Dark brown</td>
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<td>Dark horn</td>
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<td>BT 2341 (holotype)</td>
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<td>58.0</td>
<td>10.0</td>
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<td>Dark brown</td>
<td>Flesh horn</td>
<td>Dark horn</td>
</tr>
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<td>M</td>
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<td>Dark horn, pale beak</td>
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<td>52.0</td>
<td>9.0</td>
<td>Dark brown</td>
<td>Flesh horn</td>
<td>Dark horn</td>
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**Birds trapped and released**

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<td>24.0</td>
<td>8.0</td>
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<td>13.0</td>
<td>Dark brown</td>
<td>Flesh grey</td>
<td>Dark horn, flesh base</td>
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<td>28/01/94</td>
<td>Che Yang Sin</td>
<td>-</td>
<td>24.5</td>
<td>9.0</td>
<td>55.0</td>
<td>11.0</td>
<td>Dark brown</td>
<td>Flesh grey</td>
<td>Dark horn, flesh base</td>
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</tr>
<tr>
<td>26/01/94</td>
<td>Che Yang Sin</td>
<td>-</td>
<td>24.5</td>
<td>8.5</td>
<td>55.0</td>
<td>11.0</td>
<td>Dark brown</td>
<td>Flesh grey</td>
<td>Dark horn, flesh base</td>
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<tr>
<td>26/01/94</td>
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<td>-</td>
<td>24.5</td>
<td>8.0</td>
<td>55.0</td>
<td>12.0</td>
<td>Dark brown</td>
<td>Flesh grey</td>
<td>Dark horn, flesh base</td>
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<tr>
<td>26/01/94</td>
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<td>Dark horn, flesh base</td>
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<td>56.0</td>
<td>11.0</td>
<td>Dark brown</td>
<td>Flesh grey</td>
<td>Dark horn, flesh base</td>
<td></td>
</tr>
</tbody>
</table>

**Mean measurements**

| Mean (n=13) | 23.9 | 58.4 | 9.3 | 34.4 | 10.5 |

Note: * Weights given for specimens collected at Nui Bt Dowp are corrected weights, measured within 12 hours of death.
<table>
<thead>
<tr>
<th>Taxon</th>
<th>Upwarp parts</th>
<th>Underparts</th>
<th>Sides of head</th>
<th>White eye-ring</th>
<th>Lateral crown-stripe</th>
<th>Primary pattern</th>
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<tbody>
<tr>
<td>Spectacled Fulvetta A. ruficeps</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. r. ruficeps (Vieillot 1820)</td>
<td>Greyish brown, nape and mantle ochreous rufous, light grey, nape warm buff-brown</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>A. r. spectabilis (Blyth &amp; Renouard 1833)</td>
<td>Open a little upper and browner than nominate</td>
<td></td>
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<tr>
<td>A. r. arctopus (Blyth &amp; Renouard 1833)</td>
<td>Crown greyish-brown, nape as above</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>A. r. flavigula (Blyth &amp; Renouard 1844)</td>
<td>Crown greyish-brown, rest rosy-buff, rump little more rufous than mantle</td>
<td></td>
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</tbody>
</table>

Spectacled Fulvetta A. citrina (Blyth & Renouard 1833) | Capped and upper breast whitish with greyish obscure rufous, head and mantle dull grey, nape rufous |            |               |                |                      |                 |

<table>
<thead>
<tr>
<th>Taxon</th>
<th>Bill colour</th>
<th>Iris colour</th>
<th>Wing length (mm)</th>
<th>Bill length (mm)</th>
<th>Tail length (mm)</th>
<th>Tarsus length (mm)</th>
<th>Weight (g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spectacled Fulvetta A. ruficeps</td>
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<td></td>
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</tr>
<tr>
<td>A. r. ruficeps (Vieillot 1820)</td>
<td>Yellowish-brown</td>
<td>Dark brown</td>
<td>50.0-58.0</td>
<td>50.0-55.0</td>
<td>150.0-165.0</td>
<td>50.0-90.0</td>
<td>15.0-21.0</td>
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<tr>
<td>A. r. spectabilis (Blyth &amp; Renouard 1833)</td>
<td>Upper mandible grey-brown to dark brown, lower mandible brownish yellow</td>
<td>Brown to blackish, sometimes light yellow</td>
<td>55.0-65.0</td>
<td>55.0-65.0</td>
<td>200.0-250.0</td>
<td>50.0-90.0</td>
<td>20.0-28.0</td>
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<tr>
<td>A. r. arctopus (Blyth &amp; Renouard 1833)</td>
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<tr>
<td>A. r. flavigula (Blyth &amp; Renouard 1844)</td>
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<th>Taxon</th>
<th>Bill colour</th>
<th>Iris colour</th>
<th>Wing length (mm)</th>
<th>Bill length (mm)</th>
<th>Tail length (mm)</th>
<th>Tarsus length (mm)</th>
<th>Weight (g)</th>
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<tr>
<td>A. b. bicolor (Blyth &amp; Renouard 1833)</td>
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<th>Taxon</th>
<th>Bill colour</th>
<th>Iris colour</th>
<th>Wing length (mm)</th>
<th>Bill length (mm)</th>
<th>Tail length (mm)</th>
<th>Tarsus length (mm)</th>
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<tr>
<td>A. e. erythrocephala (Blyth &amp; Renouard 1833)</td>
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<th>Taxon</th>
<th>Bill colour</th>
<th>Iris colour</th>
<th>Wing length (mm)</th>
<th>Bill length (mm)</th>
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<th>Tarsus length (mm)</th>
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<tr>
<td>Chestnut-crowned Fulvetta A. erythrocephala</td>
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<td>A. e. erythrocephala (Blyth &amp; Renouard 1833)</td>
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</table>
in eastern Arunachal Pradesh, India in March, at which time some neighbouring populations of the latter are in breeding condition.

Bidentopus exhibit characters generally ascribed to taxa in the *A. ruficapilla* group. However, the wing panel conspicuously shown by all the taxa currently assigned to the above-mentioned species, is absent in *bidentopus* and much reduced in *A. r. danisi*. The darker brown bill of *bidentopus* and *danisi* and the greyish-brown tones in the crown of both taxa place them closely together and slightly removed from *A. r. ruficapilla* and *A. r. sordidior*. The absence of a wing panel in *bidentopus* suggests a cline within *A.

*rofacapilla*, of increasing dullness from north to south. Another scenario should however, be briefly mentioned: it is arguable that *bidentopus* and *danisi* are sufficiently distinct from *rofacapilla* and *sordidior* to be lumped together as a separate species, or as two separate species in their own right, since they are arguably allospecies within a superspecies. For the time being, however, we place *bidentopus* within *A. ruficapilla*.

An additional point that is relevant here is that *A. r. danisi* is only known for certain from Laos (see Appendix). However, Cheng (1987) listed it for south-east Yunnan and south-west Guizhou, China, noting that they were 'originally identified as *A. r. sordidior*', but from zoogeographical viewpoint, the specimens collected probably belong to *A. r. danisi*. The identification of these specimens remains doubtful (and they are treated separately in the Appendix), especially since the measurements given for the specimens from Guizhou (Wu et al. 1986) suggest a smaller bird than *danisi* and fit within the range known for *sordidior*.

The scattergram shown in Figure 7 plots tarsus and wing lengths for four subspecies of *A. ruficapilla* and six subspecies of *A. cinereiceps*, where *A. r. ruficapilla* n = 5, *A. r. sordidior* n = 18, *A. r. bidentopus* n = 13, *A. r. danisi* n = 1; and *A. c. cinereiceps* n = 3, *A. c. fassa* n = 2, *A. c. fucata* n = 3, *A. c. guttaticollis* n = 17, *A. c. malayensis* n = 14, *A. c. formosana* n = 7. Most of the specimens were measured by C.R.R. in the collection of the Museum of Natural History, Tring; those of *bidentopus* were measured by J.C.E., and the specimen of *danisi* was measured by R.A. Paynter, Jr. at the Museum of Comparative Zoology. The only specimen of *A. c. tonkinensis* in the collection at Tring had a broken tarsus and this taxon is therefore omitted from the figure. With reference to Figure 7, there is no clear pattern or geographicalcline; *A. ruficapilla* shows the expected decrease in size from north to south in China, but *bidentopus* is bigger than both of the northern subspecies.

ETYMOLOGY

We name this subspecies after Nui Bi Doup, the mountain on which the holotype was collected. Mount (Nui) Bi Doup (2,389 m) is the second highest mountain in the southern part of the western highlands of Vietnam. The general area, known as the Da Lat Plateau and sometimes Langbian (Langyen or Langbiang) Plateau, is noted for its high levels of endemism in birds and plants (Eames and Nguyen Cu 1994). Of the four species of bird endemic to this area, one bears the name Langbian, the Grey-crowned Crocias *Crocias langbianus*. Some other endemic subspecies variously bear the name *annamensis* derived from the old provincial name Annam, or
Figure 6 Distributional ranges of related taxa mentioned in text.

Figure 7 Scattergram showing correlation between tarsus and wing length of five subspecies of *A. nificapa* and *A. cinereops*.
dalatensis after Đa Lạt, the largest city in the area. The plant Elaeocarpus bidoupensis (Elaeocarpaceae) is similarly named after Nui Bi Doup.

It is hoped that by naming the taxon bidoupensis attention will be drawn to the need for full establishment of the Thuong Đa Nhim and Chu Yang Sin Nature Reserves in which Nui Bi Doup and Chu Yang Sin are located.

BEHAVIOUR

The first individual observed on Nui Bi Doup in 1991 appeared, by its behaviour, to be defending a territory in bamboo undergrowth along a narrow ridge. The bird persistently called from the undergrowth and was quite confiding. It showed a strong response to play-back of its alarm call. Other birds of this taxon observed at this time were however, in a small flock.

In January on Chu Yang Sin birds were only ever observed in flocks and were not territorial. The species was only observed in single species flocks.

VOCALIZATIONS

The alarm call is high-pitched and rapid, and consists of a number of similar notes and phrases which could be transcribed as '...chhu-ta-chu-ta-chu-ta-chu-ta...'. The call is not loud but is constantly given by birds, especially when mobbing a human at close quarters. What was believed to be the song of this taxon was heard briefly on one occasion by C.R.R., and consisted of four thin high-pitched notes, roughly transcribed as 'see-see-see-see'. Unfortunately the singing bird was not seen to confirm the identification.

DISTRIBUTION

A. r. bidoupensis is currently only known from Nui Bi Doup, Lam Dong Province and Chu Yang Sin, Dac Lac Province, Vietnam. On Chu Yang Sin it is probably the commonest bird in the upper montane forest. The subspecies is unlikely to be an altitudinal migrant as it was recorded at the summit of Chu Yang Sin during the winter (Figure 4).

HABITAT

Floristically the habitat of A. r. bidoupensis could be described as being within the transition zone between Oak-laurel and Montane Ericaceous forest (Whitmore 1990). On Nui Bi Doup A. r. bidoupensis was found in bamboo and undergrowth in broad-leaved evergreen forest and in secondary scrub in cleared areas. On the summit of Nui Bi Doup forest canopy height varied from 4 to 10 m; canopy cover varied from 25% to 90% and ground cover varied from 40% to 85%. A sample of 20 trees selected on the summit comprised genera of the following families: Annonaceae (35%), Fagaceae (40%), Lauraceae (10%), Myristicaceae (10%) and Symlocaceae (5%).

On Chu Yang Sin the fulvetta was found in forest undergrowth, and also in the forest canopy between 2,110 m and the summit at 2,442 m elevation (Figure 4). Between these elevations canopy height varied from 3 to 15 m; canopy cover varied from 40% to 95% and ground cover varied from 10% to 95%. In a sample of 120 trees with a diameter at breast height (DBH) of greater than 10 cm, within this altitudinal range, the following families were recorded: Cunoniaceae (2.5%), Ericaceae (34.1%), Fagaceae (35.8%), Hamamelidaceae (2.5%), Lauraceae (8.3%), Pinaceae (1.6%), Podocarpaceae (1.6%), Theaceae (12%), unidentified (1.6%).

At around 2,000 m elevation on the north-facing slope of Chu Yang Sin there is a rapid change in the forest structure. The trees become gnarled, and lichen and moss-covered. In the undergrowth the bamboo Arundinella setosa was common. Whilst the floral composition on the summit of Nui Bi Doup was similar, its structure and appearance were quite different. This is accounted for in part by the small extent of habitat on the summit of Nui Bi Doup, and that part of the forest here has been felled by humans.

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REFERENCES


APPENDIX

Localities of subspecies of Alcippe ruficapillacineiceps

A. r. ruficapilla (Verreaux 1870)

**China**
- Guangxi: Weining (Cheng 1987), Si-gui (Si-tu 35°16′N 104°18′E) + Huy-an (C. C. R. fees from BM specimen label)

Shaanxi: Qianjin Mo (Yao & Zhang 1986) + Zhouzi 34°15′N 109°58′E and Liou 33°15′V 109°58′E (Zhang et al. 1972)

**Sichuan**: Wuyuan 26°2′E 103°21′E (Cheng 1987), Baoxing 30°22′E 102°47′E (Li et al. 1976), Qianjin 31°00′N 103°07′E (Cheng 1987), Emei 29°31′N 102°59′E (Zhang et al. 1983), Chongqing 31°57′N 109°58′E + Wuyuan 35°50′N 105°50′E + Nanjing 32°35′N 109°56′E (Vo et al. 1986), Taishan: National Reserve 33°35′N 105°45′E (Sarkar 1986), Jiuhuashan 31°30′N 105°55′E (Clemen 1990), Tianshan, upper Minho (Stresemann 1923)

A. r. rosifrons (Rippon 1903)

**China**
- Sichuan: Huangshan 25°30′N 102°55′E (Cheng 1987), Muli: Mis. 27°56′N 101°17′E (Riley 1982), Baoding 25°47′N 106°10′E + Yang (C. R. fees from BM specimen label)

Guizhou: Weining (Cheng 1987) = Guizhou 25°51′N 107°17′E, Guizhou 27°00′N 103°53′E, Chongqing 20°43′N 108°10′E (Wu et al. 1986)

Yunnan: Yiping 26°54′N 104°12′E, Shuanghe 24°24′N 101°38′E, Kunming 28°02′N 102°45′E (Cheng 1983). Taziqu 25°57′N 98°15′E (Rotheschild 1921), Yunnan 29°31′N 106°20′E + Koasak 24°58′N 103°00′E (La Touche 1925), Hailing Min. 28°10′N 98°32′E (Riley 1926), Yufu 27°10′N 100°00′E + Nianmao (Riley 1932), Mt. Ssensi, Liangshan 27°06′N 101°38′E (Greenway 1933), Taishan (n = Tall) = Dali 25°42′N 102°09′E + Jinan 25°14′N 100°18′E in Menghua + Liaon: Liujiao 25°53′N 107°12′E in Kesheng (Cheng 1983); Mt. Yiingang 27°00′N 102°30′E (Chun & Tan 1940), Xiabao 24°22′N 101°01′E - sap not stated but presumably this (Wang & Wu 1983), Long Peng 23°30′N 102°33′E (Cheng 1988), Yangtze Big Bend (G), Ji-shu-shan, east of (Taibai) 33°50′N 101°18′E, Shuang-ting, Chong-ning 25°26′N 99°33′E, Meishiu (probably = Mt. Shu or Mt. Meishiu) 25°24′N 101°18′E, Tianshan: (Rothschield 1926); Aoiwa (Bages 1934), Meishiu Salwen divide 28°00′N 98°50′E + Yangtze valley 27°26′N 99°38′E + NT bank Liangchuan river 27°05′N 101°52′E (C. R. fees from BM specimen label)

A. r. decidi Delacour & Greenway 1941


M. a. decussis

Yunnan: sq (Cheng 1987) plotted at 23°10′N 104°20′E

Guizhou: Xingyi + Xiangang (Cheng 1987) = Sandong: ca. 25°06′N 105°10′E, Luochang 25°41′N 104°57′E, Heska 25°43′N 104°52′E (Wu et al. 1986)

A. c. sinuosus (Verreaux 1870)

**China**
- Sichuan: Wuyuan 29°2′N 107°2′E, Emei 29°31′N 105°9′E, Baoding 30°22′E 102°49′E, Kangding 30°30′N 101°58′E (Cheng 1987), Guangzhou c. 31°34′N 105°17′E + Guang Zhou forte (Beersdorp 1953), mi (1983), Sichuan: 31°35′N 109°9′E, Chongqing 31°57′N 108°26′E + Wanxi 32°05′N 108°10′E + Nanjing 32°22′N 109°50′E (Vo et al. 1986), Pinghu County 28°11′N 104°18′E (Zheng et al. 2012), Dayi County 30°32′N 107°27′E (Zhang et al. 1984), La Ba He Nature Reserve 31°13′N 102°32′E, Tianquan County (Li et al. 1992), Dazhongping 28°06′N 103°10′E (King 1989), Gong Ding Ceb (c) (Taylo 1967), Kaishan 31°00′N 103°31′E + Hengshengye near Sungan (Sunguan 32°35′N 103°36′E + Wannabe (Stresemann 1923)

A. c. laurinae (Ogilvie-Grant 1906)

Taiwan plotted at 23°36′N 120°45′E

A. illida (Kittl 1935)

- Honduras: San Juan 32°27′N 91°09′E, Dry Las 27°15′N 91°40′E (so the border with India, Liu devoted collected on the Indian side), Yalpa 27°15′19′N 91°30′E

China: Xining: sq Qian region (Cheng 1987), Tongguk 25°28′N 94°48′E, Tongqu 30°10′N 93°57′E, Tongkou 29°50′N 97°00′E, Yoga 29°42′N 94°55′E (Liu, Daging 30°00′N 94°48′E, Tongqu 30°10′N 93°50′E (Robson 1980).

India: Arunachal Pradesh: Tawang 27°35′N 91°52′E (As & Ripley 1987), Ridgopu Camp 27°22′N 96°57′E (Ripley et al. 1991), Thangbou 27°40′N 92°20′E, Chosho 27°00′N 92°30′E, Talley Valley 27°07′N 93°54′E, Madhu 27°00′N 93°55′E, Mayal 28°15′N 94°55′E (Stresemann 1923)