

PROCEEDINGS
OF THE
BIOLOGICAL SOCIETY OF WASHINGTON

A NEW SUBSPECIES OF WHITE-HANDED GIBBON
FROM NORTHERN THAILAND, *HYLOBATES LAR*
CARPENTERI NEW SUBSPECIES

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A study of the gibbon specimens in the U.S. and British collections has shown that an undescribed subspecies of the white-handed gibbon, *Hylobates lar* Linnaeus, 1771, exists in the Chiangmai and Loei districts of northern Thailand. This form is by now well-known as to behaviour (Carpenter, 1940), skeleton (Schultz, 1944) and dentition (Frisch, 1960); and since gibbons from Thailand are finding their way in increasing numbers into zoological gardens and Primate research facilities in the United States, it seems important to describe and define the new subspecies without delay.

***Hylobates lar carpenteri* new subspecies**

Holotype: Harvard, Museum of Comparative Zoology (MCZ) no. 41430, adult male skin, skull and skeleton; skin in dark phase. Mt. Angka, N. Thailand, 3,400 ft.; collected by Asiatic Primate Expedition of 1937.

Diagnosis: A subspecies of *Hylobates lar* with sharply distinct dark and light colour phases, all individuals having a white ring of hair round the face and the hands and feet white, sometimes as far as the wrists and ankles; dark phase a very dark chocolate brown, the tips of the hairs being blackish and their bases (up to one-half the total length of the hair) silvery-brown; pale phase creamy-white, with the basal one-quarter to one-third light grey. Hair on body much longer than in other subspecies.

Distribution: Northern and part of northeastern Thailand.

Specimens seen: From Chiangmai district (Chiang Dao, Champee, Kun Wang, Mt. Angka, Doi Nangkeo) 144 skins, skulls and skeletons mostly in the museum of Comparative Zoology, Harvard, but a few

of the osteological specimens in the Anthropology Department, University of California at Berkeley; from Loei district (Ban Muang Khai, Mt. Namlang, Mt. Phak Kinak, Mt. Lomlo, Ban Bo, Ban Na Muang) 16 skins and skulls in the U.S. National Museum; from Nakawu, one skin and skull in American Museum of Natural History; from Khun Tan mountains, one skin and skull in U.S. National Museum; from Siken, near Korat, one skin and skull in U.S. National Museum (a somewhat divergent specimen). In all, 163 skins and skulls, 144 skeletons.

Remarks: In the northwest, the distribution of this subspecies approaches the Burmese border; in the northeast, the Mekong river may form the boundary. South of about 17°N, the river Mae Nam Ping appears to form a boundary between this subspecies and the neighbouring *H. lar entelloides* I. Geoffroy, 1842, but in the latitude of Chiangmai it crosses the river at Mt. Angka and Doi Nangkeo, and possibly intergrades with *entelloides* between these two localities and Myawadu (16°40'N), the northernmost locality for the latter, although intermediate specimens are lacking. In the southwest its distribution abuts on that of *Hylobates pileatus* Gray, 1861, which according to field observations kindly communicated by Dr. Gershon Berkson is a distinct biological species.

The new subspecies requires detailed comparison only with *Hylobates lar lar* Linnaeus, 1771, and *H. l. entelloides*, occurring respectively in Malaya and in the southwest Thailand and Tenasserim region. With both of these it shares the sharply distinct colour phases, the white hands and feet, and the complete white face-ring. In the dark phase, however, *H. l. lar* is at once distinguished by its much lighter, medium brown hue, with the basal half to two-thirds of the hairs light grey-brown and the terminal portion yellow-brown; while in the dark phase of *H. l. entelloides* the general colour is dark brown (not as dark as *carpenteri*) with the basal portion very slightly lighter and greyer. In the pale phase, *H. l. lar* is nearly white, less creamy than *carpenteri* and lacking the grey basal portion; *H. l. entelloides* in light phase is more honey-coloured with uniform tone on the individual hairs. Thus, the new subspecies is nearer to its Thai neighbour in the dark phase, but to the Malay form in the pale phase. In all three, the dark and pale phases are sharply distinct, without intermediates, bearing no relation to sex and not undergoing change during the life cycle (in contradistinction to *H. pileatus*); in this sense the term "phase" is unfortunate for *H. lar*, though not inappropriate for certain other species, such as *pileatus*. The significance of dichromatism in gibbon populations is quite unknown.

The new subspecies may equally be distinguished by its much longer hair. In both *H. l. lar* and *entelloides* the hair length between the shoulders varies from 29–56 mm., but in *H. l. carpenteri* 79–103 mm. The only specimen of *carpenteri* without this character is the specimen from Siken (USNM no. 241423), in which the hair is approximately

55 mm. long; this locality is in the lowlands of east-central Thailand; other specimens were collected in montane areas, up to 8,000 ft. on Mt. Lomlo and from 3,400 to 5,700 ft. on Mt. Angka. The other subspecies of *H. lar* may equally inhabit mountainous areas; but the only subspecies with hair-length approaching the new form is the Javan *H. l. moloch* Audebert, 1800, which the hair length between the shoulders measures 50–70 mm.

The newly described subspecies is named in honour of C. R. Carpenter, whose behaviour study of gibbons in the Chiangmai area remains a classic in the field of Primate behaviour after nearly thirty years. The 144 Harvard specimens of *H. l. carpenteri* were collected on the Asiatic Primate Expedition, in the course of which Dr. Carpenter's behaviour study was carried out.

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