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# THE AGILE GIBBON IN SOUTH THAILAND

*Joe T. Marshall**

ABSTRACT

The agile gibbon *(Hylobates agilis)* in south Thailand occupies most but not all remaining forests from the east side of Khlong Thepha eastward to Waeng, near Sungei Golok. West of the Thepha, lar gibbons *(Hylobates lar)* prevail. Neither species lives on Khao Na Pradu, nor does the siamang *(Hylobates syndactylus)* cross the international boundary through continuous forests into Waeng District, Narathiwat.

Somber, black or brown hues of agile gibbons are relieved by brilliant white eyebrows. Additionally, males are adorned with white or off-white cheek patches. Although the agile gibbon female's great call resembles that of the lar gibbon, the former species can be told by the coda, sung by both members of the pair, that always includes a diphasic couplet, "who-hah." In contrast, the lar gibbon's coda includes tremolos and is sung by the male only.

## Discovery of the Agile Gibbon in Thailand

The first agile gibbons I heard, in the forests just south of Yala, went unrecognized because they were too far off for the distinctive coda to be heard. That was in January 1968, when Mr. Somchai, Imlarp, Mr. Vandee Nongngory, and I were trapping forest rodents. Our next camp was as Ton Nga Chang, 20 km west of Hat Yai, where we tape-recorded abundant lar gibbons and incorrectly assumed they occurred also at Yala (MARSHALL *et al.* 1972). But in 1972 Derek Holmes was travelling on foot through the forests at the border between Yala and Narathiwat Provinces and tape recorded some Malaysian birds new for Thailand, among which was the garnet pitta *(Pitta granatina)*. His report on birds of extreme southern Thailand was published in this journal (HOLMES, 1973). When Holmes played his tape of the garnet pitta for me, I heard the unmistakable calls of

* U.S. Fish and Wildlife Service, National Museum of Natural History, Washington, DC 20560, U.S.A.

agile gibbons behind the pitta! Upon the advice of Dr. Douglas Gould, who had studied anopheline mosquitoes in the same area, Mrs. Marshall, Mr. Vandee, and I visited Kuelong Self-help Land Development, Department of Public Welfare, in Bannang Sata District, in order to observe these gibbons. Dr. Gould had mentioned that gibbons could easily be watched in treetops at eye level, from the settlement office on a hilltop.

At Kuelong we found abundant agile gibbons, which we spent several days tape recording and examining at close range in a fifteen power telescope. We were pleased to learn that the Kuelong planners had set aside a fixed portion of the forest to serve as a necessary watershed; this was supposed to be inviolate and in it the gibbons thrived. We concentrated our observations upon two families, one on either side of the Namtok Sutalai.

## Appearance of Agile Gibbons

The six members of the two families that we observed and tape-recorded at Kuelong were black with dark brown lower back. Mr. Vandee saw a young individual of another family that was light brown with black on the chest. Although some individuals in Malaysia and Sumatra are light brown, there is no justification for regarding the agile gibbon as possessing two colour phases (CHIVERS, 1977), because GITTINS (personal communication) has found various shades of brown and dark brown at the upper Sungei Mudah in Malaysia, and an ample series from Sumatra in the U.S. National Museum of Natural History includes many intermediate animals that are dark brown dorsally with blackish ventral surface.

The individuals that we watched at close range were all adorned with white about the face. But this white is entirely different from the face ring of the more familiar lar gibbon. It consists of pure, gleaming white eyebrows, either connected or separated, as well as white or off-white cheek patches in the males. We could ascertain the sex of adults easily in the telescope from the enlarged nipples of the females and sexually distinctive calls coordinated with the opening mouths. Also evident was the flatter crown of these agile gibbons and long fur at the sides of the head to give it a rectangular shape in front view, unlike the round head of the lar.

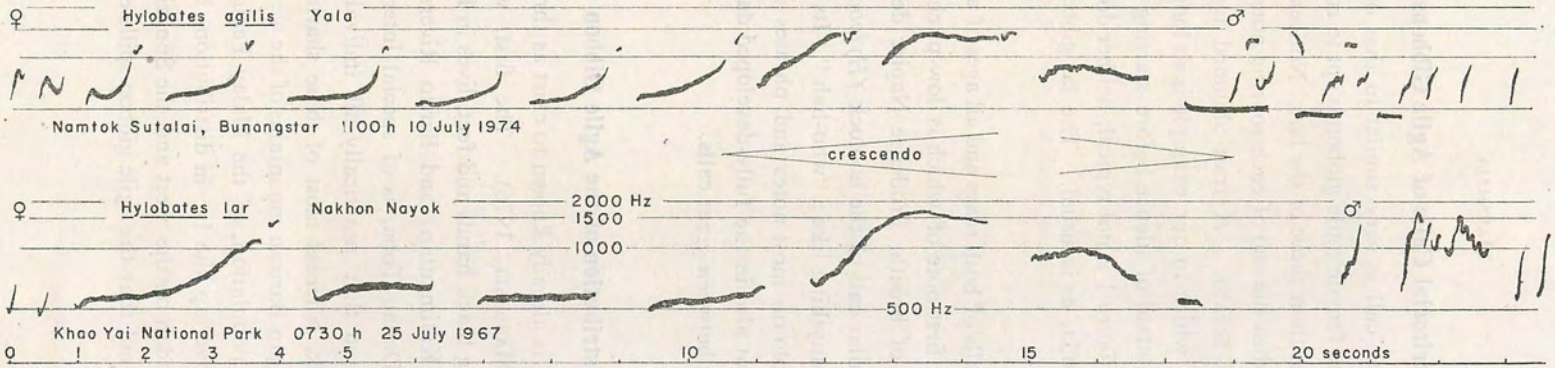



Figure 1. Territorial songs of two species of gibbons in Thailand, from disc (Marshall and Marshall, 1978).

## Territorial Calls of Agile Gibbons

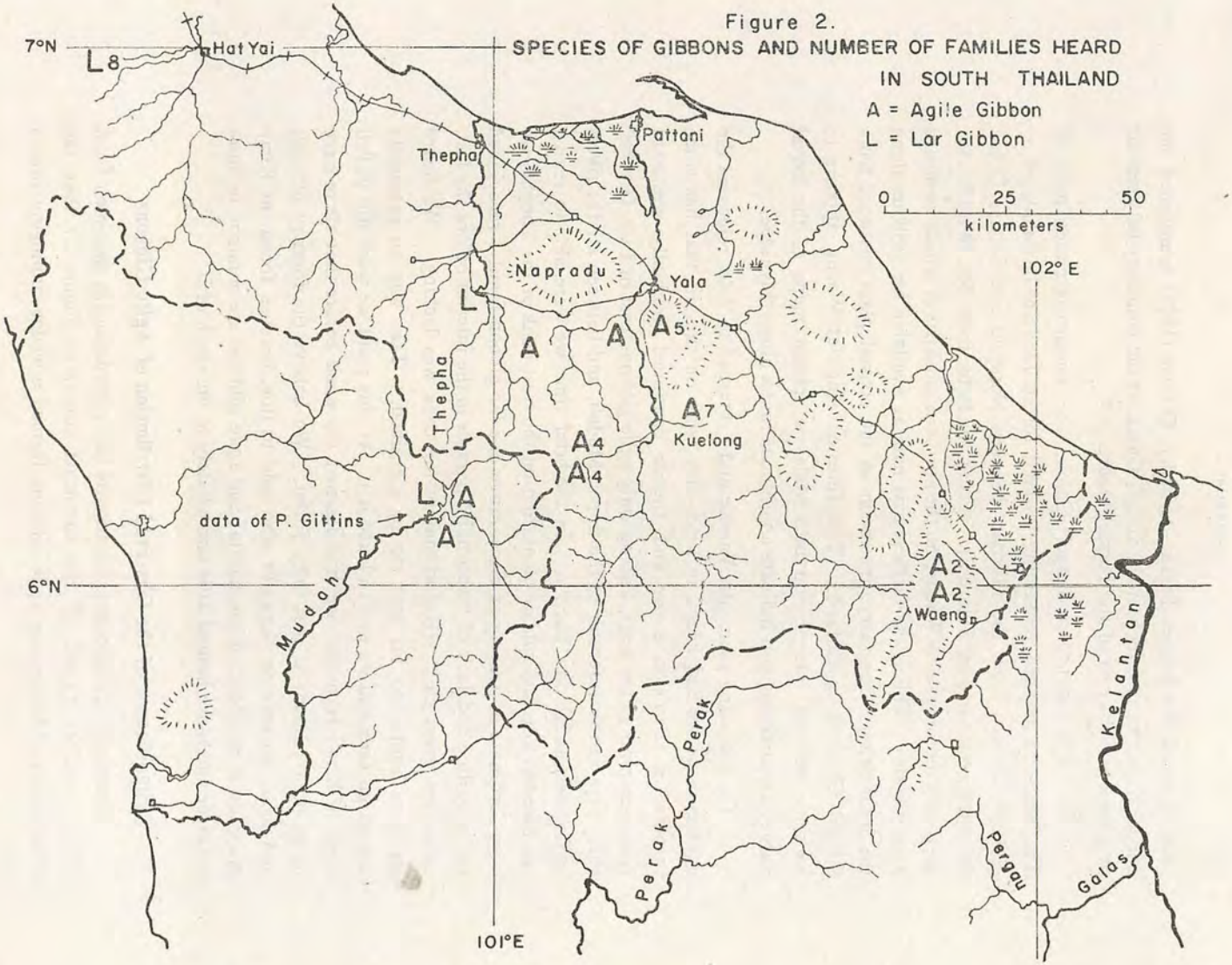
The female's great call is very similar to that of the lar gibbon, as shown in Figure 1. The female agile gibbon is apt to rush through her song with more, shorter notes than those of the lar. Noticeable on the sonagram are the ornaments added to the end of each soaring note of the agile gibbon, done on inspiration of breath. A trait shunned by lar females is the prolonged decrescendo, which in our example is so long that the male fails to observe the usual interval of silence before starting the coda. (In this respect the example in Figure 1 is not typical; neither does it show the whole family joining in the coda, as is usual. The lar gibbon's coda is sung by the male alone.)

Coda and short calls of both sexes and all ages of agile gibbons feature a diphasic couplet, the first note of which is low-pitched, the second high and uttered on intake of breath; Prudence Napier designated the phrase "who-hah," from a similar call of the hoolock *(Hylobates hoolock)*. The lar gibbon never utters anything like a "who-hah." Its distinction lies with the regular, even tremolo on most notes and phrases uttered by the male, not only in the coda, but also in the fully-developed dawn songs and in his excited, interim singing between great calls.

## Distribution of the Agile Gibbon

The agile gibbon is already known to exist as three, isolated populations (MARSHALL and MARSHALL, 1976). The first, without black body coloration but possessing black hands and feet, lives in Kalimantan between the Kapuas (of West Kalimantan) and Barito Rivers. The second, in Sumatra southeast of Danau Toba, is of special interest since WILSON & WILSON (1976) discovered that practically all individuals of the eastern swamp forests are black, whereas most of those sharing the range of the siamang in the Pegunungan Barisan mountains of the west are various shades of brown. The third population, of the Malay Peninsula, was found by FOODEN (1969) not to overlap the lar in distribution, but to be contained between the Sungei Mudah on the west and the Sungei Perak on the east. CHIVERS (1974) later found that the agile gibbon spills eastward around the

Figure 2.
SPECIES OF GIBBONS AND NUMBER OF FAMILIES HEARD IN SOUTH THAILAND



headwaters of the Sungei Perak. Finally, GITTINS (1978) established the Sungei Kelantan and its branch, Sungei Galas, as the boundary between lar and agile gibbons east of the Perak (Figure 2).

In 1978 I went to Sungei Golok, the southeasternmost town of Thailand, and mapped remaining lowland forests likely to be inhabited by gibbons, as seen from the railroad between Napradu and Sungei Golok (shown by hachures in Figure 2). From the latter town Mr. Wiroth took me on his motorcycle to Waeng, on the northern outskirts of which we heard agile gibbons. This is the farthest east habitat available for gibbons along the international boundary, inasmuch as the coastal plain eastward from Sungei Golok is marshland. The forested ridge at Waeng appears to continue without interruption into Malaysia; recent maps of the Royal Survey Department also indicate continuous forest along this ridge.

The following year, Mr. Vandee and I returned to Yala, relocated the agile gibbons we had heard in 1968–they were on the hill that has since sprouted a television tower–and thence continued gradually westward from one river to the next, finding only agile gibbons east of PAUL GITTINS' study area at the reservoir of the upper Mudah, and between all the rivers as far west as Khlong Thepha. In the brief time we were able to search the forested hills and rubber plantation on the west bank of the Thepha, we were fortunate in hearing at close range one lar gibbon family, recognized by its wailing and lack of "who-hah" phrases in the interim before the last, unhurried great call. (Unfortunately the coda was lacking. We heard another family too far west to be identified. This was an extremely dangerous area and we had to leave it.) At this point we were still in full view of Khao Napradu; we had learned the week before that there have never been gibbons in that lofty forest. We believe the forestry officials and local workers on Napradu who told us this, because forest on Khao Napradu is excellent gibbon habitat and agile gibbons are common in more cut-over and more hunted hills immediately to the south of it.

## Significance of the Observed Distribution of Agile Gibbons

GROVES (1972) thought, because he had recorded a lar specimen from 5°22'N, 102°25'E (just off the southeast corner of Figure 2) that the distribution of Malaysian agile gibbons formed a wedge impinging into a

continuous range of the lar gibbon; he pictured the lar as occurring all along the eastern shore of the Malay Peninsula. Such an hypothesized distribution was important to his conception of lar and agile gibbons as mere subspecies, that had differentiated in more or less their present positions, as adjoining elements of a Rassenkreis. The discoveries reported here eliminate that view by showing that the lar is not distributed along the eastern shore in one, continuous population; that *agilis* is not a wedge extending part way into *lar* territory; that there is no intergradation between *agilis* and *lar*; and that *agilis* and *lar* are not in their original position in a racial circle. It follows that all the river contacts between them are secondary and that they are full species; *Hylobates agilis* is not a subspecies of *H. lar*. Agile and lar gibbons evolved elsewhere in isolation from each other, emigrated from afar into the Malay Peninsula, and filled up the habitat available between rivers that they could not cross or where they encountered the other species already entrenched on the opposite bank (GITTINS, 1978).

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