## SOUNDS PRODUCED BY NEPTIS HYLAS (NYMPHALIDAE)

While in South Viet-Nam between 1955 and 1959, I witnessed two occasions on which specimens of *Neptis hylas* (L.) produced noises which were not incidental to normal movement, as are the clicking sounds made during flight by some of the robust-bodied Nymphalids such as *Charaxes* and *Euthalia*.

On the first of these occasions, in December of 1956, a specimen of Neptis hylas alighted in my Saigon garden on a hibiscus leaf four feet from the ground and about six feet away from me. It flattened its wings against the horizontal upper surface of the leaf (a position commonly assumed by this species and others of the genus), extended its reduced foremost pair of legs, and began to snap them together rapidly so that the tarsi met to produce a sharp click which would have been audible even at a distance several times greater than the two yards between myself and the butterfly. In quality, the sound was identical to that made by tapping a fingernail edge against a sheet of paper resting on a resilient surface. The legs were partially extended on a horizontal plane, the angle between femur and tibia being about ninety degrees, and the gesture which brought the tarsi together was similar to that of a child clapping its hands.

The movement was very rapid, the insect giving three successive clicks within less than a second; it paused for about two seconds and then repeated the series of three clicks. After this it flew to a leaf on a level with my head and repeated the performance for a third time before flying away.

The second occasion was three weeks later when another specimen (with fresher coloring) came to almost the same spot on the hibiscus hedge. It settled in the same posture on a leaf five feet up and about eight feet away, turned itself through 180 degrees until it faced me, and produced three rapid clicks. In this instance, the insect's position and its greater distance from me made it difficult to be sure which pair of legs was employed; however, the movement of the legs coincided with the clicks. In an effort to approach more closely I frightened it away.

On neither day was I able to capture the butterfly, or to determine its sex. Both of these incidents occurred between 10:00 and 11:00 A.M., on hot sunny mornings with no wind. I never noticed the presence of a second specimen to which either of the two could have been signaling, although this is inconclusive. Possibly, the behavior was an attempt to dislodge clinging parasites. I subsequently examined every fresh capture of this species for signs of ectoparasitism but found nothing.—Frederick W. Scott, P. O. Box 19, Chester, Nova Scotia, Canada.