NEW HOST RECORDS IN BARYCONUS FOERSTER
(HYMENOPTERA, SCELI ONIDAE)

SUMMARY. - Three different species of Baryconus Foerster reared from eggs of Phaneroptera sp. (Orthoptera, Phaneropteridae) in the Palaearctic Region and two more species from undetermined Phaneropteridae in the Neotropical Region are reported. The host-parasite relationships are briefly discussed.

Two new combinations are proposed: Baryconus gravelyi (Mani) and B. montanus (Szabò), both transferred from Hoploteleia Ashm.

The world wide genus Baryconus Foerster includes many species most of them described under the name Hoploteleia Ashm. (Muesebeck & Walkley, 1956). Nevertheless, virtually nothing is known about their hosts.

For this genus of scelionids there are only two brief notes of biological information indicating Orthoptera as its hosts. The former is Baryconus gravelyi (Mani) (1) recorded from the eggs of a long-horned grass-hopper laid in sugar cane in Madras (Mani, 1937); the latter is Baryconus orthopterae (Dodd) bred from eggs of an orthopteron on leaf in Sierra Leone (Dodd, 1919).

These records come from the Oriental and Ethiopian Regions respectively. The present note reports five new host records, three from the Palaearctic and two from Neotropical Regions. Host-parasite relationships are also briefly discussed.

The first species from the Palaearctic Region is close to Baryconus montanus (Szabò) (2). It emerged from eggs laid in between the two faces of a leaf of an unidentified tree (the Island of Sardinia, Cagliari, October). In a single leaf there were nine eggs and eight of them were parasitized; some Baryconus emerged by gnawing a hole in either the upper or lower face of the leaf (Figs. 1 and 2).

The second species, close to B. europaeus (Kieff.), emerged from eggs

(1) Comb. n.; described as a Hoploteleia Ashm. but from the figure given by Mani (1939) it is clearly a Baryconus Foerster.
(2) Comb. n. (type examined); transferred from Hoploteleia Ashm.
similar to those of the species above mentioned and was collected in the same locality and date.

The third species, also close to *B. europaeus* (Kieff.), has been reared from an egg laid in an orange leaf (Naples, Portici, 20-V-1975; leg. VIGGIANI).

The shape of host-eggs and the characteristic manner of laying prove they belong beyond any doubt to a *Phaneroptera* sp. (*Orthoptera, Phaneropteridae*). According to the geographic distribution given by RAGGE (1956) it could be *Phaneroptera nana nana* Fieber as shown also by GOIDANCH (1938-41) who found this species (by then known as *Ph. quadripunctata* Brunn.) to be the most common in continental and insular Italy.

Figs. 1-2 - Eight of the nine eggs of *Phaneroptera* sp. (1) were parasitized by *Baryconus* sp.; three specimens emerged through a hole gnawed in the upper face of the leaf and others in the lower one. An egg (length about 4 mm) of the katydid (2) removed from the leaf with a female of *Baryconus* sp. on a transparency.

The eggs of *Phaneroptera* spp. are laid in autumn and overwinter; most likely *Baryconus* parasitizes the eggs just after the oviposition, then overwinters in an immature stage and emerges in the following spring.

From the Neotropical Region I have a specimen of *Baryconus* sp. (from Recife, Brazil) reared from an unidentified *Phaneropteridae*. Moreover, MASNER (in litteris) has kindly informed me that he has seen (in the U.S.N.M. of Natural History in Washington) several specimens of *Baryconus* sp. (from the Virgin Islands) hatched from eggs of a *Phaneropteridae* laid in a leaf which looks like that in Fig. 1.
As far as the geographic distribution of _Phaneroptera_ spp. is concerned, it is interesting to note (Ragge, 1956) that large parts of the Palaearctic, Ethiopian, Oriental and Australian Regions are covered by only five species of _Phaneroptera_ Serv.

Moreover, one could speculate that the host range of _Baryconus_ is not restricted to _Phaneroptera_ only; as a matter of fact there are some other genera of _Phaneropteridae_ scattered in the world which oviposit in the same places and manner (Chopard, 1938). This factor could be rather important for the morphotypical specialization (Kozlov, 1970) of _Baryconus_ Foerst. (3).

These host records also suggest that the shape of the body in _Baryconus_ spp., apart from the characteristically depressed head, is not as flat as one might expect judging from the flatness of the eggs in which they develop. _Baryconus_ is in fact far from being as remarkably flat as _Platyceilo_ Kieff., which is also presumed (Kozlov, 1970) to be a parasite in greatly flattened eggs of _Phaneroptera_. Such a peculiar adaptation could also be explained (Brues, 1922) by the need of looking for the host-eggs in very narrow places, like beneath bark, and obviously this is not the case of _Baryconus_.

However, further observations seem to be necessary to confirm the host record of _Platyceilo_ Kieff. and not only from the taxonomic point of view.

Finally, it is generally known that the scelionid egg-parasites of _Orthoptera_ look for their hosts either in the soil, e. g. _Acrididae_ and _Gryllidae_, or in the stems of herbaceous plants, e. g. _Oecanthidae_ and _Ephippigeridae_; in comparison with them, _Baryconus_ Foerst. appear to be confined to trees or bushes where _Phaneropteridae_ lay their eggs.

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RIASSUNTO

NUOVE SEGNALAZIONI DI OSPITI DI _Baryconus_ FOERST (Hymenoptera, Scelionidae)

Sono riportate tre specie di _Baryconus_ Foerst ottenute da uova di _Phaneroptera_ sp.

(3) It is also worth to remark that Dono (1919) says about _B. orthopterae « bred from eggs of an Orthopteron on leaf » and not « ... in leaf »; if his statement is correct it is a logical conclusion that _Baryconus_ parasitizes also the eggs of katydids, like the Nearctic _Microcentrum rhombifolium_ Sauss., which oviposits on leaves or twigs.
(Orthoptera, Phaneropteridae) della regione paleartica e altre due ottenute da un Phaneropteridae della regione neotropica. Sono brevemente discusse le relazioni ospite-parassita. Sono inoltre proposte due nuove combinazioni: Barcyonus gravelyi (Mani) e B. montanus (Szabò), entrambe trasferite da Hoploleleia Ashm.

REFERENCES

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