are indistinguishable from Costa Rican material. Within Costa Rica, occasional specimens have shorter scapes (Fig. 1). In at least one instance the variation is intranidal, and other workers have typical long scapes.

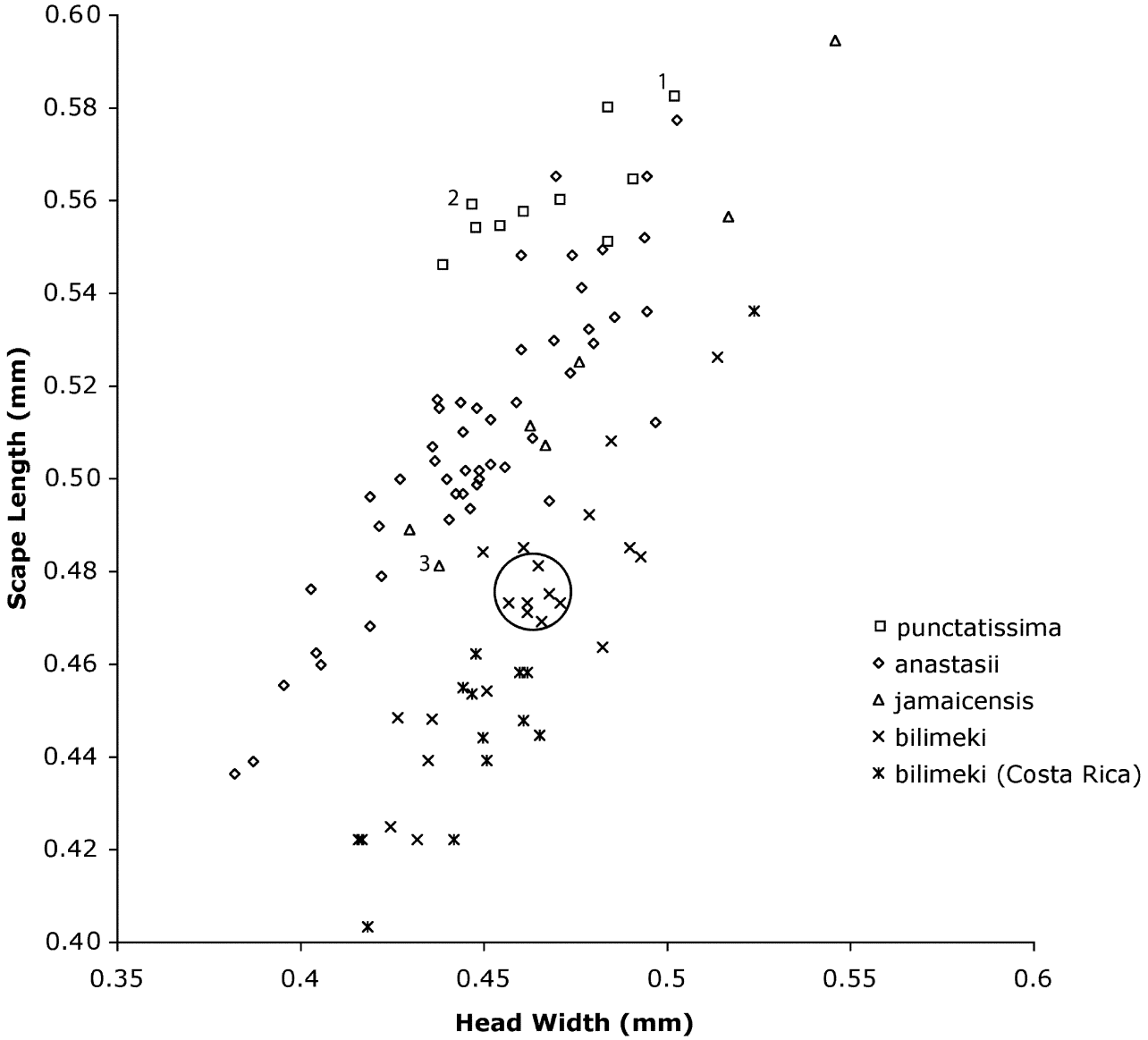

FIGURE 1. Relationship of minor worker head width and scape length for *Pheidole bilimeki* and related species. 1: from the type series of *P. punctatissima*. 2: syntype of *P. punctatissima napaea*. 3: syntype of *P. jamaicensis*. Circle: syntypes of *antoniensis*, *barbouri*, *cellarum*, *insulans*, *johnsoni*. A similar plot for major workers shows the same general trends but with less separation among the species.

Pheidole anastasii is a very abundant species in the low arboreal stratum of primary wet forest understory throughout Costa Rica. Nests may be found in almost any kind of cavity or sheltered space, and they may augment their nest space by building galleries and tunnels with carton or earthen construction. Nests have been observed in cavities in live stems of *Psychotria* (Rubiaceae), *Witheringia asterotricha* (Solanaceae), and *Pausandra trianae* (Euphorbiaceae), bracts of *Ischnosiphon* (Marantaceae), clasping petiole bases of Araceae, and the bulbous leaf bases of *Tillandsia bulbosa* (Bromeliaceae). It is a common opportunistic inhabitant of myrmecophytes such as saplings of *Cecropia*, portions of myrmecophytic *Ocotea* trees abandoned by *Myrmelachista*, and myrmecophytic *Piper* species. In every Costa Rican population of myrmecophytic melastomes (those with petiolar or laminar pouches; *Conostegia setosa*, *Clidemia* sp., *Tococa* sp.) that has