Further evidence for old radiations originating at the northern edge of the Australian plate

With respect to Jönsson et al. (1) and their discussion of the geographic origin of basal lineages within the core Corvoidea, I would like to highlight relevant evidence from recent phylogenetic studies of other Australasian vertebrate lineages. These have identified at least five other lineages with distributions centered or restricted to the islands to the northern edge of the Australian plate and east of the Asian plate that potentially date back to at least the Miocene: Ceratobatrachid frogs (endemic radiation ≈ 30 Mya) (2), two lineages of blindsnakes [*Acutothyphlops* and Pacific *Rhamphothyphlops* (both endemic clades ≈ 20 – 30 Mya)] (3), and two lineages of skinks, *Corucia* (split from nearest relatives in Australia ≈ 20 Mya) and *Tribolonotus* (split from nearest relatives a very deep ≈ 50 Mya) (4).

Additional sampling is required for many of these lineages; however, as with the core Corvoidea, they are all distributed across islands (in some cases very widely), and overwater dispersal has clearly played an important role in both their original colonization and ongoing persistence. However, in contrast with the pattern outlined by Jönsson et al. (1), the distribution of these lineages is generally centered to the north of present-day New Guinea, and they are absent or relatively depauperate in New Guinea itself; this suggests that subaerial land to the north of the Australian plate and east of the Asian plate has a long history and has played an important role in persistence and dispersal of lineages—since the Miocene or even earlier. The distribution of additional skink, gecko, and bat lin-

eages in this area suggests that further clades may have a similar history.

Rather than critique Jönsson et al. (1), the purpose of this letter is simply to highlight the potential importance of islands to the northern edge of the Australian plate (and quite separate from present-day New Guinea), not only as relatively brief stepping stones for migration but also as important zones of long-term persistence, radiation, and subsequent dispersal in multiple directions. This has important implications for understanding of the great interchange of fauna between the Australian and Asian plates and across the Wallace Line. For a long time, discussion has been dominated by simple hypotheses of Gondwanan or Asian origin for major radiations; although this dichotomy remains fundamentally true and relevant for many groups, an increasing number of dated phylogenies are revealing that a more nuanced approach is required to understand patterns of dispersal and diversification in this complex geographical region.

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