High Diversity and Regional Endemism in Land Snails of Eastern Tanzania

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Abstract
In February/March 1995 we collected land snails (including slugs) at 12 stations in eastern Tanzania. A total of 571 person-hours yielded 9174 snails assigned to 159 morpho-species. The richest two sites each (<4ha of uniform forest) had 50 species (Amboni Cave) and 48 species (near Amani, Usambaras), nearly as great as the most species-rich sites known in the world; sieving of litter and soil would probably yield more species. In lowland (coastal) forests, both diversity and endemism seemed to decrease from north to south. Most snail species were found within only one of four coastal or one montane geographic regions, indicating substantial regional endemism. Only one species (Achatina fulica) appeared in all five regions, and 84% of all other species were found in only one (61%) or two regions (23%). The predatory streptaxids comprised about half the species and a third of the individuals at the Usambara site, an extremely high ratio of carnivores. Small snails (< 5mm greatest adult shell dimension) – many of which are probably undescribed species – comprise a substantial proportion of Tanzanian molluscan diversity; more surveys are needed, especially because of human pressures on the few forest patches remaining.

Keywords
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East Africa
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