

Communal egg laying by *Gonatodes humeralis* (Sauria, Gekkonidae) in Manaus primary and secondary forest areas.

Welton Yudi ODA¹

ABSTRACT

Communal nesting has been registered for a number of lizard species at different sites. Here it is described communal egg laying of *Gonatodes humeralis* at different sites near and in human buildings in the period between 1990 and 1998. All these communal nests have been found in the dry season, between April and July, suggesting that the nests are more common in this season, when the activity of their predators is less intense and the reduction of humidity diminishes the decomposition action of the fungi that may kill the eggs.

KEY WORDS

egg laying, lizard, *Gonatodes humeralis*, nest

Desovas comunais de Gonatodes humeralis (Sauria, Gekkonidae) em áreas de floresta primária e secundária de Manaus.

RESUMO

Desovas comunais tem sido registradas para inúmeras espécies de lagartos em diferentes regiões. Neste estudo, estão descritas desovas comunais de Gonatodes humeralis em diferentes localidades próximas, no interior de construções humanas no período entre 1990 e 1998. Todas estas desovas comunais foram encontradas na estação seca, entre abril e julho, sugerindo que estas desovas são mais comuns neste período, quando a atividade dos predadores é menos intensa e a redução da umidade diminui a ação decompositora dos fungos que pode matar os ovos.

PALAVRAS-CHAVE

desova comunal, lagarto, Gonatodes humeralis, ninho.

Several species of lizards lay their eggs communally. Rand (1967) suggests that this behavior may be due to the relative scarcity of suitable sites leading this species to a multiple use of those available. Communal nesting has been registered for a number of species of the genus *Anolis* (Rand, 1967, Estrada, 1987), for some teiids, like *Kentropyx calcarata* (Magnusson & Lima, 1984) gymnophthalmids, like *Neusticurus epleopus* (cf. Magnusson & Lima, 1984), and for several species of geckos (Rand, 1967, Greer, 1967, Vitt *et al.*, 1997). Vitt *et al.* (1997) studying the ecology of the gecko *Gonatodes humeralis* found communal nesting of this species along with the eggs of four other lizard species: *Norops trachiderma* (Polychrotidae), *Arthrosaura reticulata* (Gymnophthalmidae), *Gonatodes basemanni* (Gekkonidae) and *Thecadactylus rapicauda* (Gekkonidae). The number of eggs encountered in a communal nesting depends on the species involved. Communal nestings of

some teiids, like *Kentropyx calcarata* can contain more than 800 eggs (Magnusson & Lima, 1984) and the gecko *G. humeralis* can oviposit more than fifty eggs in single communal nestings (e. g. Vitt *et al.*, 1997).

Communal lizard nesting was found at different sites, such as termite nests (Greer, 1967), decayed bark, pile of coconut husks, under the soil, cavities of trees, rock piles (Rand, 1967), under and in the middle of logs (Rand, 1967, Estrada, 1987), and near small streams (Magnusson & Lima, 1984). Vitt *et al.* (1997) found eight natural nests of *G. humeralis* at the Rio Xingu. These nests were found in an ant mound, rotted palm trunk, rotted log, palm debris, terrestrial termite nest and inside a rotting liana. Cunha (1961), studying some aspects of the life history of amazonian lizards, observed eggs of *G. humeralis* under decayed bark and at tree roots close to the ground.

¹ Professor Assistente do Departamento de Parasitologia da Universidade do Amazonas (UA) – Manaus/AM, e-mail: yoda@argo.com.br

In Manaus, state of Amazonas, where this lizard species frequently uses habitats of secondary forest (Oda, 1998), communal egg laying was found near and in human buildings.

The eggs encountered were only of *G. humeralis*, which produces clutches of a single egg. In the period between 1990 and 1998, three communal nestings were found at different sites. The first nest was found in a rotten log located in a primary "terra firme" forest at the Ducke reserve of the "Instituto Nacional de Pesquisas da Amazônia (INPA)" and was composed of six eggs measuring near 7,0 mm. The second nest was composed of ten eggs and at least ten empty egg shells. This communal egg laying was found in a termite nest that surrounded a palm trunk in a secondary forest at the Campus of "Universidade Federal do Amazonas". The third nest was found inside an aluminum mug in the "Fazenda Gavião", a Smithsonian Reserve at ZF-2 road, Manaus, AM. This nest was composed of six eggs that measured from 6.5 to 7.9 mm in length and from 0.08 to 0.1 g in weight. All these communal nests have been found in the dry season, between April and July. It suggests that the nests of this species are more common in the dry season, when the activity of their predators is less intense and the reduction of humidity diminish the decomposition action of the fungi that may kill the eggs.

LITERATURE CITED

- Cunha, O. R. 1961. Os lagartos da Amazônia Brasileira, com especial referência aos representados na coleção do Museu Goeldi. *Bol. Mus. Par. E. Goeldi, Zool.*, 39: 1-180.
- Estrada, A. R. 1987. *Anolis argillaceus* (Sauria: Iguanidae): un nuevo caso de puestas comunales en anolis cubanos. *Poeyana*, 353: 1-9.
- Greer, A. E. 1967. The ecology and behavior of two sympatric *Lygodactylus* geckos. *Breviora*, 268: 1-19.
- Magnusson, W. & Lima, A. 1984. Perennial Communal Nesting by *Kentropyx calcaratus*. *J. Herp.* vol. 18(1):73-75.
- Oda, W.Y. 1998. *Utilização de Microhabitats e densidade populacional da lagartixa Gonatodes humeralis em áreas de floresta na região de Manaus*. Dissertação de mestrado: INPA/UA. Manaus.
- Rand, A. S. 1967. Communal egg laying in anoline lizards. *Herpetologica*, 23: 227-231.
- Vitt, L. J.; P. A. Zani e e A. A. M. Barros. 1997. Ecological variation among populations of the gekkonid lizard *Gonatodes humeralis* in the Amazon Basin. *Copeia*, 1997: 32-43.

RECEBIDO EM 13/03/2003

ACEITO EM 18/02/2004