

Interspecific amplexus between *Kalophrynus sinensis* (Peters 1867) and *Pulchrana grandocula* (Taylor 1920) in Rogongon, Iligan City, Philippines

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Photograph by: Andrie Bon A. Flores.

Subjects identified by: Andrie Bon A. Flores.

Location: Sitio Libandayan, Barangay Rogongon, Iligan City, Mindanao, Philippines.

Elevation: 791 metres ASL.

Habitat: Pond, Secondary forest.

Date and time: 19 March 2022, 19:15 hrs.s

Identity of subjects:

- i) Black-spotted Sticky Frog/ Philippine Sticky Frog, *Kalophrynus sinensis* (Amphibia: Anura: Microhylidae).
- ii) Big-eyed Frog, *Pulchrana grandocula* (Amphibia: Anura: Ranidae).

Description of record:

During a herpetological survey we observed an interspecific amplexus between two different anurans, namely Black-spotted Sticky Frog (*Kalophrynus pleurostigma*) and Big-eyed Frog (*Pulchrana grandocula*) (Fig. 1). They were found near a pond where *Pulchrana grandocula* was abundant. No eggs were produced at the time of observation.



Fig. 1. *Kalophrynus sinensis* (above) and *Pulchrana grandocula* (below)

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Remarks:

The upper frog (assumed to be male) was identified as *Kalophrynus sinensis* because it is a microhylid with distinct traits which are (i) having black spots on its back, (ii) a light edged ocellus, (iii) existence of middorsal stripe from snout to neck where it bifurcates, (iv) coarsely granular body on dorsal and ventral section, (v) well developed subarticular tubercles, (vi) lack of webbing on fingers with slightly swollen and rounded tips but has webbed toes, (vii) dorsolateral ridge distinct from shoulder to inguinal area, and (viii) granular rugose dorsal surface (Inger 1954 and Zug 2015). This species is endemic to the Philippine Islands.

The lower frog (assumed to be female) was identified as *Pulchrana grandocula* which is a relatively medium-sized ranid that has (i) a slender body, (ii) long legs, (iii), smooth dorsal skin with dorsolateral skin folds, (iii) digit tips are rounded with webbed toes, and (iv) big eyes. This species can be found on tree branches and leaves, on rocks, on rotten logs in or along rivers and streams, and amid rotting leaves on the forest floor near rivers in cultivated regions, secondary, and dipterocarp woods (Plaza & Sanguila, 2015). This species is endemic to the Mindanao Pleistocene Aggregate Island Complex (PAIC) region (Sanguila et al., 2016).

Anurans have a wide range of intricate mating behaviors. Male frogs start the process by making species-specific mating sounds or advertisement calls that attract females of the same species. The male then performs amplexus, in which he grasps the female with his front legs, fertilizing the eggs laid by the female. However, mating between them can be a deviation such as interspecific amplexus (Vivek et al., 2014), which can occur when two different species' reproductive activity overlaps in space and time, when niche segregation between species is absent, when there is a reduced number of females, and even when there is a release of confusing chemical signals (Höbel, 2005). This phenomenon appears relatively uncommon in frogs, given the low number of published notes and observations (Groffen et al., 2019). In this case, our observation shows that the interspecific amplexus between *Kalophrynus sinensis* and *Pulchrana grandocula* can be explained by the overlap of space and time, since they are found in the same area. Other interspecific amplexus events have been observed in the Philippines (e.g. Lorenzo & Ralubit, 2019) however, to our knowledge, this is the first record of observation of the interspecific amplexus between these two Philippine endemic frogs *Kalophrynus pleurostigma* and *Pulchrana grandocula*.

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