Global Amphibian Assessment, Mainland South East Asia group 2002, tasked to determine the conservation status of this species, considers this species Critically Endangered. Current available information confirms this assessment.

\( P. \text{dorsalis} \), which has been confirmed to occur on Negros and Luzon (Alcala and Brown 1998), used to be a very common forest floor species in the primary tropical rainforest on Negros Island (Taylor 1920, Inger 1954, Brown and Alcala 1961). Fieldwork in southwestern Negros in December 2001 - October 2002 has shown that this species is found in both limestone and non-limestone (volcanic) forests and shares the forest floor microhabitat in limestone forests with the Negros cave frog, \( P. \text{spalaeus} \), which is a strictly limestone species. We have explored nine forest fragments (eight limestone and one non-limestone) with areas ranging from several to 122 hectares in southwestern Negros and have confirmed the presence of \( P. \text{dorsalis} \) in all but one. The exception is an open-canopy limestone forest fragment that lacked sufficient ground cover (forest duff, rotted vegetation, etc.). We concluded that the species was originally present in all of the eight limestone fragments but has disappeared in one of them.

There is field evidence that the population density of \( P. \text{dorsalis} \), as determined by thoroughly exploring eight 10m x 10m plots in each of the nine small forest fragments of various sizes in southwestern Negros, in December 2001 - October 2002, has decreased. The mean density (and SE) of adult and subadult \( P. \text{platymantis dorsalis} \) in the 8-ha Canlabac non-limestone forest fragment (elevation, 300m above sea level) is \( 2.37 \pm 0.84/100m^2 \), or 237 frogs/ha, the highest density in the eight forest fragments where it has been found. Only about four hectares of this forest fragment are suitable as frog microhabitat. The estimate of the total population of this frog in the Canlabac forest would be \( 237 \times 4 \approx 948 \) adults. This population size is probably too small to ensure its survival in this forest fragment, and a continuous monitoring of this population is needed. In the seven limestone forest fragments (elevation, 100-400m above sea level) where the species has been found, the mean density ranges from \( 0.37 \pm 0.13 \) to \( 2.25 \pm 0.79/100m^2 \) or 37-225 frogs/ha. The mean for all the plots in seven limestone fragments is \( 0.67\pm0.14/100m^2 \) or 67/ha. The estimates for both non-limestone and limestone forest fragments in southwestern Negros (237/ha; 67/ha) are lower than that for Cueros de Negros, southeastern Negros (588.5/ha), based on two 100ft x 100ft plots (hence no error estimates) at an elevation of 1,100m (Brown and Alcala 1961). A 14-ha plantation forest (control) did not harbor this species, indicating that it did not meet the suitable physical and ecological conditions required by this species. The population density in the eight forest fragments (plot data combined) appears to have declined during the past 50 years.

The IUCN group mentioned above considered this species Near Threatened. It should, however, be considered Threatened in some forest fragments on Negros Island, like those in southwestern Negros.

This population decline of \( P. \text{platymantis negrosensis} \) and \( P. \text{dorsalis} \) on Negros Island, the Philippines, may be attributed to the combined effect of fragmentation and degradation of the tropical rain forest on Negros Island over the past 50 years.

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Action plan for sustainable exploitation of Rana ridibunda stocks from the Danube Delta Biosphere Reserve (Romania)

By Zsolt Török
The decline of fish-stocks from the Danube Delta is a well-known phenomenon. Between 1945–1989, the quantities of fish harvested on the actual territory of the Danube Delta Biosphere Reserve (DBBR) decreased from about 47,000 tons to 5,116 tons (Dragomir & Staraş, 1992). In order to reduce some part of the pressure on fish stocks toward other natural resources, the DDBR Authority has requested specific proposals for sustainable exploitation of frog, shellfish, leech and crayfish stocks from the DDBR area.

According to studies carried out in 1960–1970, in the continental waters of Romania (about 60,000 ha) the total amount of edible frog and marsh frog biomass ranged between 352 and 572 tons, of which 60% is suitable for selling on the market. In 1965, 152 tons of frogs were harvested in Romania (Ghelase & Lacovu, 1966). The criterion for frog exploitation during that period was that no less than 120 tons of frogs would be harvested each year. The conservation measures were a prohibition period between April 1st and May 15th, and establishment of a minimum body-weight limit for captured frogs (Ghelase & Lacovu, 1966). As a result, “some biotope crowded with frogs in the past, in 1964 were practically depopulated” (Bacalbaşa, 1966). Furthermore, in the 1981–1985 period the frog quantities harvested in the Danube Delta decreased from 77 tons to 27 tons (Mitache, 1989).

Several critical factors have to be taken into account in the design of frog stock exploitation (Semlitsch, 2000); the number and density of the specimens occurring in the exploitation areas, habitat diversity (depending on hydrological factors), and the probability of dispersion of specimens between neighbouring areas. In studies of population density and dynamics the following parameters were taken into account: fecundity, natality, recruitment, age of sexual maturity, the number of years when adults can have offspring, and mortality in different age classes (Duellman & Trueb, 1994).

The management of frog stocks from the DDBR includes:
1. Assessment of Marsh Frog biomass existing in the DDBR
   In 2001 we carried out pilot studies in:
   - Somova-Parcheş area (9,170 ha) (pre-deltaic wetlands);
   - Sontea-Fortuna area (24,636 ha) (so-called fluvialite delta);
   - Roga-Pulu area (42,300 ha) (so-called maritime delta).
2. Establishment of limits for exploitable quantities of Frogs
   The Romanian regulations indicate 30g as the minimum body-weight limit of frogs that can be harvested from natural waters. This weight is that of sexually active specimens at least 2 years old. According to Sin (1980), sexually active specimens represent between 22% (May) and 27% (July) of frog populations. Sin (1981) concluded that, in September, the specimens with the biggest body-size represent only 6.58% of the numbers of individuals of the populations, but the biomass of these large specimens represents about 15% of the population biomass. Due to the fact that harvesting has the most severe impact on the biggest specimens, the limit for exploitation of Rana ridibunda stocks from DDBR should be below 15% of the total biomass of sexually active specimens.
3. Minimum body-weight
   Analyses have revealed that R. ridibunda females have between 3.5–4.7g (April and September) and 17.4g (June) of food in their stomach. In the case of males, the average weight of the food ranges between 2.9 – 4.3g (April and September) and 26.5g (in June) (Valenciuc & Ion, 1993). Consequently, as a protection measure of local Marsh Frog populations, the DDBR Authority has established 40g (instead of 30g) as the minimum body-weight of harvested R. ridibunda specimens.

4. Regulation of harvesting techniques
   The following methods are allowed to be used by frog collectors in the DDBR area:
   a) capture with the “Italian fishing rod” – the frogs are captured with the help of a coloured material (textile, piece of plastic etc.) fixed at the end of a rope attached at the tip of a stick. The attracted specimens are immobilised with the help of a hand-net (Ghelase & Lacovu, 1966),
   b) capture with the use of a device called a “torbuc” (a metal frame fixed to the end of a stick, and with a long, small-meshed net attached). This frame is pushed suddenly toward the specimen chosen by the collector.

5. Regulation of the harvesting periods
   Prohibition periods for exploitation of marsh frogs from the DDBR are: 15 November – 31 March (hibernation and post-hibernation period) and 1 April – 31 May (breeding period). Also, between 15 April and 15 June there is a general ban on fishing in the DDBR, the capture of frogs also being prohibited. Practically, due to these limitations, the only harvesting period is between about 15 June and 30 October (maximum 4.5 months).

I welcome and invite contact with other researchers involved in amphibian stock assessment and the establishment of quotas. Contact: Zsolt Török, Danube Delta National Institute, 165 Babadag street, Tulcea 820112, Romania.
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Report of a breeding aggregation extirpation of an endemic marsupial frog, *Gastrotheca christiani*, in Argentina

By Marcos Vaira

In Argentina, habitat loss and land conversion was considered a potential cause of declines and disappearances of many amphibian populations (Lavilla, 2001). However, direct evidence for declines due to habitat destruction has rarely been reported (Lavilla et al., 2000; Lavilla and Cei, 2001). For most Argentinian species, little or no baseline data exist and there are no published reports which have documented declining populations (Young et al., 2001).

*Gastrotheca christiani* is a marsupial frog endemic to northwestern submontane montane forests of Argentina. It was listed as vulnerable by Lavilla et al. (2000). The species appears to be a habitat specialist associated with rock crevices and tree hollows (Laurent et al., 1986). I provide information on the extirpation of a long-term monitored breeding aggregation as a consequence of maintenance activities on an unpaved road at the Parque Nacional Calilegua, an area of montane forest in northwestern Argentina (23°35’ S, 64°30’ W).

*Gastrotheca christiani* is confined to elevations from 1550 to 2600 m (Laurent et al., 1986). There were 5 sites for which the species was historically recorded from 1967 to 1981. Since then, only one site has been monitored. Abra Colorada is located 50 meters outside the border of the park and, as a result, has experienced heavy disturbance since 1950 when a road was built. The area was devoid of the structural complexity typical of a montane forest, although the species still occurred there, 29 years after the first record. Throughout May 1995 to April 1997, I performed 35 visits to the park. Surveys were performed over a 24 month period allowing various seasons to be covered. The species was easily monitored by aural surveys. Calling males were heard inside deep crevices of an isolated rock surrounded by exposed red soil by the steep side of the road. I caught two females (both found carrying eggs inside the pouch) so there was direct evidence of breeding activity occurring at the site. On 11 September 1996, the breeding aggregation experienced a complete habitat loss as a result of road maintenance activities. Thirteen frogs were found dead inside pieces of the rock apparently because of exposure to dehydration. The site and nearby areas were the subject of intensive surveys for another 3 breeding seasons. In 1997 I found no frogs although I visited the site biweekly from January to April. During 1998 to 1999 I surveyed the site and nearby areas 28 times, but no frogs were heard or detected. I repeated the surveys, both day and night, for many months until 2002.

Since recognition of this breeding aggregation occurred with no evidence of recovery, I conclude that the species has been extirpated from the area as a result of habitat destruction. Although *Gastrotheca christiani* has persisted in a heavily disturbed site over 25 years, and several other anuran species known from this and nearby areas seemed to be stable (Vaira, 2002) a substantial intensification of the threat could increase the vulnerability of such small breeding aggregations.

A rapid rate of habitat loss and degradation in the subtropical montane forest of Argentina has been noticed by several authors (Brown and Grau, 1995). The lack of knowledge of the population biology of *Gastrotheca christiani* is of particular concern. Baseline data on distribution, habitat preferences, and population size are urgently needed. Given the data presented in this report, it seems appropriate that the Vulnerable status of *Gastrotheca christiani* should be maintained.

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Non-finding of the Kenyan endemic frog *Arthroleptides dutoii* by Stefan Lötters, Damaris Rotich and Michael Veith

*Arthroleptides dutoii* Loveridge, 1935 (Bull. Mus. Comp. Zool., 79: 17) is a small riparian petropedetid frog only known from the lower eastern versant of Mount Elgon in the Kenyan highlands. According to the original description, three specimens were collected on 8 January 1934 at the Kiotobos River at 7,200 feet. Additional material was collected on 6 April and 17 May 1962 at the Suan River at 7,000 feet (cf. Klemens, 1998, *Herp. J.*, 8: 35-40).

At about these altitudes (i.e. roughly above 2,000 m asl) is the border of the Mount Elgon National Park (under Kenya Wildlife Service, KWS). From here, well forested areas inside the park continue up to Mount Elgon’s tree line. Outside the park, at the foot of Mount Elgon, landscapes nowadays mostly comprise agricultural land. The Kiotobos River is part of a fluvial system running off Mount Elgon. However, this name is only used for the lower portion, i.e. where several streams unite at about the area of the park border and from there downstream. Because of the altitude given in the original description, we consider the area of the park border to include the type locality. The Suan River is part of another fluvial system running off
Mount Elgon. We have failed to find Arthroleptides dutolii on three trips to the area of the type locality at lower Mount Elgon National Park (01°02’ N, 34°47’ E; ca. 2,150-2,300 m asl). In September 2001, June 2002 and May 2003, we each went for several days and did both opportunistic day and night sampling in seven streams (which contribute to the Kitobos River) and at the Chululus Swamp in the forest zone of the National Park. During the 2001 and 2003 searches there were frequent rains. Other frog species, including a riparian Afrana species, were common. We have not sampled at the Suan River and tributaries or in agricultural lands at the foot of Mount Elgon.

Arthroleptides dutolii is considered an “extinct species” on the 1996 IUCN Red List of Threatened Animals (ed. by Baillie and Groombridge, 1996; Gland, Switzerland), although, to the best of our knowledge, no comprehensive inventories have been performed in the Mount Elgon region. Our data are also non-comprehensive. They support the idea, however, that A. dutolii may be difficult to find (probably due to population declines) or even extinct. Comprehensive surveys will be undertaken to study the status of A. dutolii.

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DAPTF Rapid Response Fund
The DAPTF maintains a small fund to provide support for researchers and herpetologists facing problems that require urgent action. We have recently provided support for two projects and are considering another.

Ronald W. Gagliardo (Atlanta Botanical Gardens) is investigating a recently discovered population of Atelopus varius in Costa Rica; this species has not been seen for many years. This project will specifically investigate the range and size of this population and whether it is resistant to chytridiomycosis.

We are supporting Heiko Werning (Berlin) in his contribution to a joint Chilean-German project to investigate recent declines and reported deformities in Rhinoderma spp. in Chile.

We are considering a request from James Vonesh (University of Florida) to support a rapid assessment of a crisis facing amphibians in East Usambaras Mountain of Tanzania. This important region is currently experiencing a gold rush, with as many as 10,000 prospectors looking for gold in forest streams.

For further details, contact the DAPTF Director, Tim Halliday: lr.halliday@open.ac.uk

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