Amathole Frog Conservation Project

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Background

The Critically Endangered (IUCN 2010) Amathole Toad, *Vandijkophrynus amatolicus* (Figure 1), occurs in montane grasslands of the Winterberg and Amathole mountains in the Eastern Cape Province, South Africa. In September 2011, the species was rediscovered near Hogsback town, following a 13 year period in which it was not detected, and was even thought to be possibly extinct. The rediscovery has prompted the need for urgent conservation research and action in this area to secure grassland habitat for this species and provides a starting point for this project. The biggest threat to the Amathole Toad is the loss of grassland habitat as a result of increased forestry in the region. This project with start-up funding provided through CEPF, has initiated work in this region to establish relationships with relevant stakeholders (including local forestry companies, land-owners, communities, government and NGOs) to ascertain the species occurrence; improve the understanding of threats facing the species; implement management practices for habitat protection; and improve local awareness about the species and its important grassland habitat.

Figure 1: Left - Upland grassland habitat in a pristine state on top of Elandsberg near Hogsback, a new locality for the species identified in 2012; right: A male Amatole Toad, *Vandjikophrynus amatolicus*, from Elandsberg, 2012.

Project objectives

See Table 1 below. The broad objectives of the project are to:

1. Using a predictive model, survey the range of the species to detect populations, establish distribution and estimate population size.
2. Improve the understanding of the threats facing the species.
3. Establish relationships with forestry companies, other NGOs and local community in the range to implement long-term management strategies.
4. Develop conservation plans to provide recommendations to land-owners for minimising their impact on this species.
5. Create awareness about this iconic species amongst local communities.

Project progress

Using historical occurrence records from the South African Frog Atlas Project (SAFAP) and regional climatic data, a predictive model has been created to help guide surveys of the Amathole Toad. Based both on this model (Figure 2) as well as on visual assessment, suitable habitat for the species has been surveyed between 2012 and 2014. Surveys commenced in September 2013 with known sites being revisited and 14 predicted sites being ground-truthed, as well as sections of the Amathoel Trail (Cata hut-Mnyameni hut section and the Zincuka hut-Hogsback section). Despite very dry conditions, two individuals of the Amthole Toad were found sheltering under pine logs at the 2011 site on the Cathcart Road (approximately 10 km from Hogsback town). Reports of the species have also been sent in by local land-owners demonstrating the effectiveness of awareness materials that have been made available in Hogsback and surrounds. No toads have yet been detected at predicted sites.

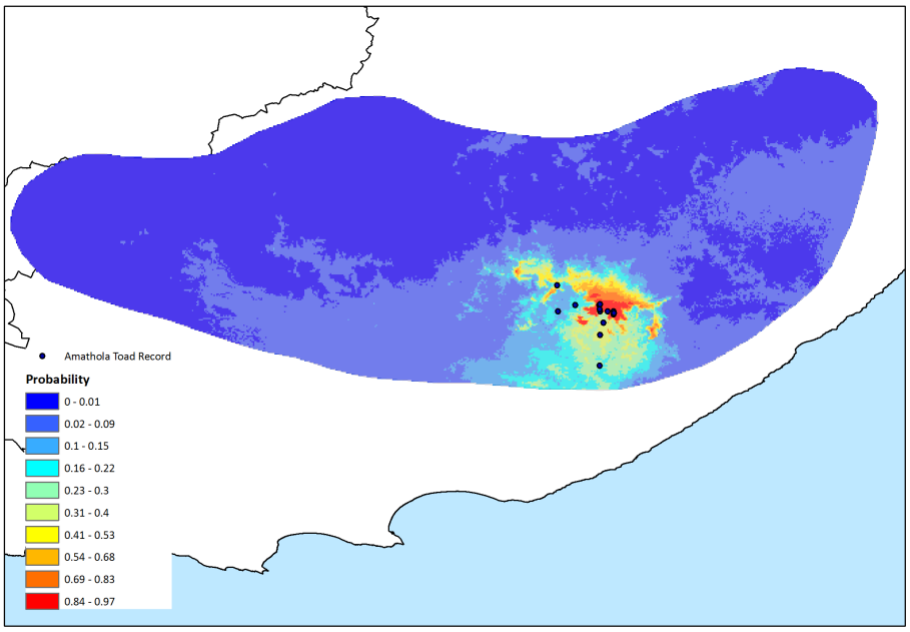

Figure 2: MaxEnt ecological niche model of predicted habitat for the Amathole Toad, red indicates the highest probability locations.

Table 1: Overall project goals, objectives and activities

Overall Goals	Objectives	Activities
1. Understand conservation needs of the Amathole Toad and Hogsback Frog	1.1. Baseline data on population size and threats are collected for the Amathole Toad and Hogsback Frog	1.1.1 Survey species' ranges based on known locality data and predictive models
		1.1.2 Implement long-term monitoring protocols for the Amathole Toad and appoint site managers to conduct monitoring procedures and report emerging threats
2. Secure populations of the Amathole Toad through conservation actions	2. 1 Ensure that effective conservation partnerships are established.	2.1.1 Engage with key partners including land-owners , provincial conservation authorities and municipalities, and communities
	2.2. Identify priority locations for land-owner agreements in order to proclaim them as protected areas	2.2.1 Develop management plans to provide habitat management recommendations for all sites and guidelines for habitat rehabilitation
		1.2.2 Initiate Biodiversity Stewardship process for priority sites
3. Manage key habitats in collaboration with relevant partners	3.1. The impacts on wetland habitats critical for threatened frog species are mitigated through the uptake of responsible management approaches.	3.1.1 Liaise with relevant stakeholders to implement habitat management to ensure long-term survival of amphibian species of concern
		3.1.2 Develop management plans for priority sites
		3.1.3 Support implementation of management plans as needed
		3.1.4. Facilitate restoration with relevant partners (e.g. Working for Water) where appropriate
		3.1.5. Advise on, and implement translocation procedure, re-introductions and biodiversity offsets where relevant
		3.1.6. Develop and distribute educational materials to improve public awareness about these frog species and importance of wetland habitat

Public awareness

Good strides have been made in terms of improving public awareness about the Amathole Toad, with the project featured on 50/50 in November 2013:

Part 1: http://www.youtube.com/watch?v=GpvKSC8k4aU

Part 2: http://www.youtube.com/watch?v=E2oz4ghYpnA

As part of a national awareness day for frogs held on 28 February 2014 a media campaign was launched with the Amathole Toad as one of the focal species. Schools in the region have been invited to participate in an art competition featuring the Amathole Toad, for which prizes from Froggie shoes have been donated. The local Crab Bush School attended an informative event about the importance of frogs and their habitat and took part in wetland clean-up in Hogsback. Each learner received donated gumboots and T-shirts.

Figure 3: School learners from Crab Bush School, Hogsback, taking part in Leap Day for Frogs

THERE ARE MORE RED HAIRED OPTOMETRISTS THAT JUGGLE, NAMED FRED IN THE WORLD THAN THERE ARE AMATHOLE TOADS.

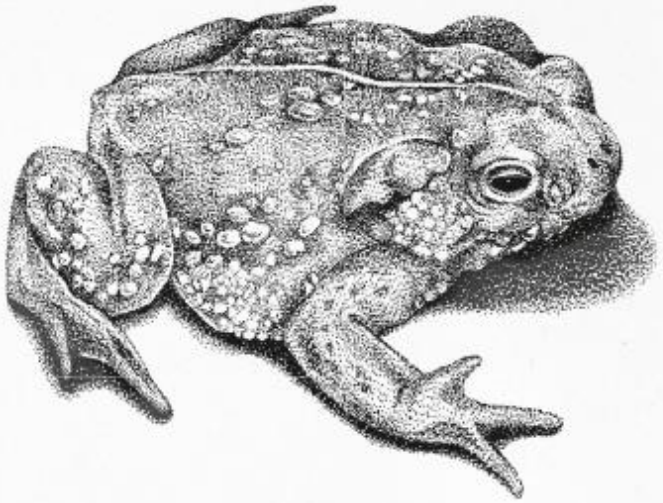

Figure 1 Amathole Toad *(Vandijkophrynus amatolicus)*

WE CAN CHANGE THIS BY
LEAPING INTO ACTION TODAY

LEAPDAY
FOR FROGS

ENDANGERED
WILDLIFE TRUST

THREATENED
AMPHIBIAN
PROGRAMME

www.leapdayforfrogs.org.za

Products and Outcomes

This project will provide the essential information required to understand the true status of this species, once thought to be lost. The results of this project, working in coordination with local stakeholders and community champions, will help to lay the foundation for a long-term management strategy and initiate suitable conservation actions. The development and stakeholder buy-in of the management strategy will be seen as the primary output. Management plans are set to be developed and made available to the local forestry company on which property the toad is known to occur. Habitat protection through Biodiversity Stewardship will also be explored as a conservation option for private land-owners in the region.

Collaboration

Through internal collaboration with the EWT Source-to-Sea Programme, Christine Coppinger has been appointed as field officer in the region and is conducting surveys and with building relationships and awareness amongst relevant local stakeholders. Recently, through collaboration with Conservation South Africa and WESSA, the project has received significant funding from the European Union for a catchment-wide project focused on natural resource conservation and management for the generation of a water-linked green-economy in the Eastern Cape and southern KwaZulu-Natal.

The overall project will address challenges around water security, poverty alleviation and the value of freshwater investment scenarios in three priority sites: the Amathole, uMzimvubu and uMzimkulu catchments in South Africa. The key objectives are to improve natural resource protection and management; to empower communities to value the natural resources under their custodianship; and to empower communities to enter the green economy through the development of sustainable alternative livelihoods. The project will build on on-going work in the catchments and will upscale conservation efforts already underway in these sites.

Specific outcomes for the next 4 years include:

• At least 6 000 ha of critical wetlands and riparian zones in selected priority sites secured under formal stewardship status for key biodiversity and water service functions.

• At least 20,000 ha of degraded rangeland and riparian zones in the selected priority sites placed under improved natural resource management.

• Two thousand four hundred hectares of land already cleared of Invasive Alien Plants maintained through follow-up treatment within community stewardship agreements.

• At least eight households receiving regular income through bee-keeping initiatives.

• Four households receiving annual income through employment of community-driven Eco-Rangers
• At least 80 households benefiting from Invasive Alien Plant clearing and rehabilitation employment

• Sixteen schools participating in the Eco-Schools programme and undertaking environmental learning and contextual action projects

The project will be working closely with schools, school-leavers, municipalities, communities, industry and various tiers of government to educate the youth in environmental issues, provide skills development for adult-learners, capacitate local municipalities and develop sustainable micro-enterprises to enable communities to join the Green Economy.

This CEPF-funded project has been catalytic in bringing attention to the area and its species, attracting funding opportunities as above. The project has also received funding from Rand Merchant Bank and will continue to seek additional funding.