PHYSALAEMUS CENTRALIS (Central Weeping Frog): VOCALISATIONS AND CONSERVATION. Playback of vocalisations is a commonly used technique in field ornithology (Boscolo et al., 2006), with multiple applications in ethology (Mc Gregor & Falls, 1984), species detection, resolution of taxonomic issues (Whittaker, 2002), censusing (Ratcliffe et al., 1998) and assessments of intra- and interspecific interactions (e.g. Stouffer, 1997). However, despite the vocal nature and territoriality of many Anurans, use of the technique in herpetological studies has been limited and frequently restricted to more specialised studies of vocalizations and their associated behaviours (e.g. Wells, 1988). Whereas playback is habitually used even by non-professional birdwatchers as a means of visualising secretive or hard to see species, few herpetologists commonly employ the technique, preferring instead more invasive and frequently frustrating active search methods. Many anurans do react strongly to playback, and in some cases the technique may even have advantages over active searching such as assisting in the location of small species, those that call from burrows or concealed locations and even in tracing the source of unknown calls.

At Reserva Natural Laguna Blanca (RNLB), Departamento San Pedro, Paraguay on 15 December 2009 the author heard a loud chorus of frog calls from dense grassy vegetation at the edge of the eponymously named lake. The lake lies in an area of transition from Cerrado to Atlantic Forest, and takes its name from the white sand substrate, giving it the aspect of a "white lagoon" from the air. The throaty and tireless "RONK RONK …" call was strongly reminiscent of the song of the Spot-billed Toucanet *Selenidera maculirostris* (Aves: Ramphastidae). Despite considerable active searching with a flashlight the numerous singing individuals could not be located. However, playback of a recording of the toucanet (Straneck, 1990) close to a singing frog in thick grass had the remarkable result of bringing it immediately into the open from where it could be captured and identified as *Physalaemus centralis*.

The Central Weeping Frog *Physalaemus centralis* Bokermann 1962 is widespread in the Pantanal and Cerrado eco-regions of eastern Bolivia, central Brazil and northeastern Paraguay. However, though it is not uncommon throughout much of its Brazilian range, the species has until recently been little recorded in Paraguay (Brusquetti & Lavilla, 2006), being known only from a small number of specimens from Departamentos Amambay and Canindeyú. This led to its classification as Vulnerable B2b(iii) at the national level during the last conservation assessment of Paraguayan amphibians (Motte et al., 2009). However, subsequent to the initial finding, the species has proved to be one of the most abundant Anuran species at RNLB (Smith et al., 2012), and considering its abundance in its Brazilian range, downgrading of the Paraguayan national conservation status to least concern seems warranted.

The issues of chronic under-sampling of amphibians in Paraguay, the reliance on rapid ecological assessments for distribution data and the effects of disproportionate field effort in certain favoured areas have already been raised (Smith et al., 2012). The example here further illustrates the benefits of employing a variety of different field techniques when monitoring amphibians, and the wider use of playback techniques, especially when confronted with unfamiliar calls produced by reclusive species, is one simple way in which techniques can be diversified and results potentially improved.

Thanks to the hard work of all the Para La Tierra (www.paralatierra.org) herpetology volunteers at Reserva Natural Laguna Blanca, who have made the long term protection of this small private reserve a national conservation priority through inventory work, establishing it as the most biodiverse protected area for reptiles and amphibians in the country.

REFERENCES

Boscolo, D., Metzgerm J. P., & Vieillard, J. M. E. (2006). Efficiency of playback for assessing the occurrence of five bird species in Brazilian Atlantic Forest fragments. *Anais da Academia Brasileira de Ciências* 78: 629-644.

Brusquetti, F., & Lavilla, E. O. (2006). Lista comentada de los anfibios de Paraguay. *Cuadernos de Herpetologia* 20: 3-79.

McGregor, P. K. & Falls, J. B. (1984). The response of Western Meadowlarks (*Sturnella*

neglecta) to the playback of undegraded and degraded songs. *Canadian Journal of Zoology* 62: 2125-2128.

Motte, M., Nuñez, K., Cacciali, P., Brusquetti, F., Scott, N. & Aquino, A.L. (2009). Categorización del estado de conservación de los anfibios y reptiles de Paraguay. *Cuadernos de Herpetologia* 23: 5-18.

Ratcliffe, N., Vaughan, D., Whyte, C. & Shepherd, M. (1998). Development of playback census methods for Storm Petrels *Hydrobates pelagicus*. *Bird Study* 45: 302-312.

Smith, P., Cacciali, P., Atkinson, K., Pheasey, H. & Motte, M. (2012). New distributional records of amphibians for departamento San Pedro, Paraguay (Amphibia). *Check List* 8: 903-907.

Stouffer, P. C. (1997). Interspecific aggression in *Formicarius* antthrushes? The view from central Amazonian Brazil. *Auk* 114: 780-785.

Straneck, R. (1990). *Cantos de las aves de Misiones I. Buenos Aires*: Editorial LOLA. Cassette recording.

Wells, K.D. (1988). *The effect of social interactions on Anuran vocal behavior.* In The Evolution of the Amphibian Auditory System, pp. 433-454. Fritzsch B (Ed.). New Jersey: John Wiley & Son.

Whittaker, A. (2002). A new species of forest-falcon (Falconidae: *Micrastur*) from southeastern Amazonia and the Atlantic rainforests of Brazil. *Wilson Bulletin* 114: 421-445.

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