

A glance at Ethology in Brazil and a step forward: *Current Ethology*, a new journal

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Launching *Current Ethology* is the latest step to improve visibility of ethology in Brazil and abroad. From a humble start at the *Instituto de Psicologia* (IP), University of São Paulo, at the laboratory of Prof. Walter Hugo de Andrade Cunha, ethology in Brazil shows its strength through its graduation programs and institutionalized features, such as regular meetings, a sound society and a journal, *Revista de Etologia*, converted into *Current Ethology* from now on (Fuchs, 1995; Ades, 2010; Otta *et al.*, 2013; Spinelli de Oliveira *et al.*, 2014; Spinelli de Oliveira and Magrini, 2015; Magrini and Spinelli de Oliveira, 2015).

Prof. Cesar Ades, another name from the IP, was one of the key figures whose work stimulated interest in ethology among Brazilians from the seventies until his premature death in 2012. He was responsible for bringing G. Baerends as guest of the *I Congresso Latinoamericano de Psicologia* in 1973, in São Paulo, the same year in which the Noble Prize in Medicine or Physiology was awarded jointly to Prof. Nikolaas Tinbergen, Prof. Konrad Lorenz and Prof. Karl von Frisch “for their discoveries concerning organization and elicitation of individual and social behaviour patterns”¹. Thereafter Prof. Ades gave lectures on animal behavior in Belo Horizonte, MG (1975), Pelotas, RS (1976), Florianópolis, SC (1978), Natal, RN (1980), São Paulo, SP (1983) and Belém, PA (1984). He was invited by the organizers of zoological congresses and of other conferences alike, always assuring a

multidisciplinary audience of eager students from everywhere in Brazil (Ades, 2010).

The first ethological meeting in Brazil was named *I Encontro Paulista de Etologia* – São Paulo Ethology Meeting – organized by Prof. Mateus J. R. da Costa Paranhos and Prof. Antonio Fernandes Nascimento Jr, among others, in 1983, Jaboticabal, SP (Figure 1). For three years these meetings continued as regional events (Table 1), twice in Ribeirão Preto (vide <http://www.etologiabrasil.org.br/>) and from there on became national and were named *Encontro Anual de Etologia* (EAE) – Annual Meeting of Ethology (Costa, 1992). Some of them holding as well, over the last years, Latin American Workshops (e.g. in Alfenas, Ribeirão Preto, São Paulo and Mossoró) (Spinelli de Oliveira *et al.*, 2014).

Every Brazilian region has held at least one EAE (Figure 1, Table 1), and in 2016 the XXXIV EAE occurred in Jaboticabal, for the fourth time organized by Prof. Paranhos da Costa and his group. As has been said when the tenth anniversary was commemorated: “*Creio que a escolha do nome ‘Encontro’ tenha sido feliz, porque reflete o sentimento das pessoas que participam deste evento, ou seja, vão ao encontro da Etologia*”, i.e. “**Meeting** was a fortunate name to be chosen, because it reflects the feeling of contentment of those who embrace an encounter with ethology” (Costa, 1992).

It was during the XI EAE in Bauru, SP, 1993, that Prof. Ades proposed the fou-

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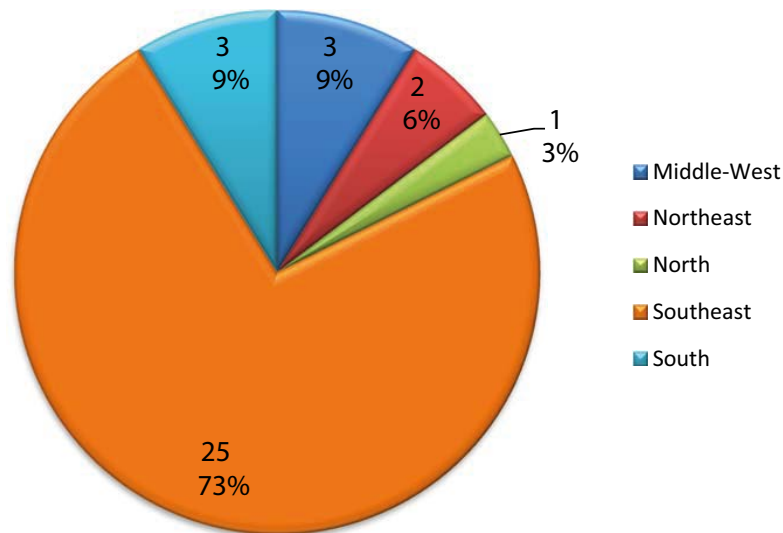


Figure 1. Annual Meetings of Ethology, currently known as *Encontro Anual de Etologia* (EAE), have been held in every region of Brazil, uninterruptedly since 1983. Number and percentage of the total number are expressed for each region. Within the Southeastern region, São Paulo (18 times) and Minas Gerais (7 times) States were responsible for the majority of the meetings held in Brazil until 2016.

ndation of a Brazilian Society of Ethology – *Sociedade Brasileira de Etologia* (SBEt) – and a provisional board of directors got elected (Table 1). In the following year, during the XII EAE in Cananéia, SP, the society’s statute was discussed and approved. In 1996 the board of Directors was formally elected, during the XIV EAE in Uberlândia, MG, with Prof. Ades being chosen the first president of the society (Ades, 2010).

Since 1999 SBET is member of the **International Council of Ethologists** (ICE) and Prof. Eduardo Ottoni, from the IP, SP, is currently its representative at the ICE. Also, in the name of ICE, bringing together the Animal Behavior Society, and for the first time in Latin America, the **XXVIII International Ethological Conference** was held in Florianópolis, Santa Catarina, in 2003, under the general coordination of Prof. Ades. The local coordination was by Prof. Luiz Carlos Pinheiro Machado Filho, the Scientific Committee was composed by Dr. Carlos Ruiz-Miranda, Dr. Kleber Del-Claro, Dr. Gelson Genaro,

Dr. Maria José Hötzel, Dr. Regina H. Macedo, Dr. Mateus José Paranhos da Costa and Dr. Alfredo Peretti. Further information about SBET and the abstracts from the EAEs can be accessed using the following addresses: www.etologiabrasil.org.br and <https://www.facebook.com/etologiabrasil/>.

One of the main objectives of the SBET is to implement and support a journal of Ethology (Statute, article 3, item 3) and after a very brief summary of the history of ethology in Brazil, we are now back to the history of *Revista de Etologia*.

A brief history of Revista de Etologia

Already in 1993, when the SBET was funded, there were talks of transforming the annals of each EAE in a journal and a bulletin². A commission was formed in 1996 to define the scope and characteristics of an ethological journal (the name **Tropical Ethology** was even suggested). Following consensus, the name *Revista de Etologia* was chosen and officially the Brazilian

Table 1. Institutions, Cities and Federative Units where meetings of ethology were held from 1983 to 2016 in Brazil. Initially meetings were denominated *Encontro Paulista de Etologia* (EPE), and from 1986 on they were named *Encontro Anual de Etologia* (EAE) – Annual Meetings of Ethology (see <http://www.etologiabrasil.org.br/eae/>). Abbreviations of Institutions are in Supplement 1.

Year	Meeting	Institution	City/Town	Federative Unit
1983	I EPE	UNESP	Jaboticabal	SP
1984	II EPE	USP	Ribeirão Preto	SP
1985	III EPE	USP	Ribeirão Preto	SP
1986	IV EAE	USP	São Paulo	SP
1987	V EAE	UNESP	Jaboticabal	SP
1988	VI EAE	UFSC	Florianópolis	SC
1989	VII EAE	UNESP	Botucatu	SP
1990	VIII EAE	UFRN	Natal	RN
1991	IX EAE	UFSC	Florianópolis	SC
1992	X EAE	UNESP	Jaboticabal	SP
1993	XI EAE	UNESP	Bauru	SP
1994	XII EAE	USP	Cananea	SP
1995	XIII EAE	USP	Pirassununga	SP
1996	XVI EAE	UFU	Uberlândia	MG
1997	XV EAE	UFSCar	São Carlos	SP
1998	XVI EAE	UNESP	São José do Rio Preto	SP
1999	XVII EAE	UNESP	Botucatu	SP
2000	XVIII EAE	UFSC	Florianópolis	SC
2001	XIX EAE	UFJF	Juiz de Fora	MG
2002	XX EAE	UFRN	Natal	RN
2003	XXI EAE	UFU	Uberlândia	MG
2004	XXII EAE	UFMS	Campo Grande	MS
2005	XXIII EAE	UNESP	Assis	SP
2006	XXIV EAE	UnB	Brasília	DF
2007	XXV EAE	UNESP	São José do Rio Preto	SP
2008	XXVI EAE	PUC MG	Poços de Caldas	MG
2009	XXVII EAE	UFMS	Bonito	MS
2010	XXVIII EAE	UNIFAL	Alfenas	MG
2011	XXIX EAE	UFU	Uberlândia	MG
2012	XXX EAE	USP	Ribeirão Preto	SP
2013	XXXI EAE	USP	São Paulo	SP
2014	XXXII EAE	UFERSA	Mossoró	RN
2015	XXXIII EAE	UFPA	Belém	PA
2016	XXXIV EAE	UNESP	Jaboticabal	SP

DF: Distrito Federal, MS: Mato Grosso do Sul, MG: Minas Gerais, PA: Pará, RN: Rio Grande do Norte, SC: Santa Catarina, SP: São Paulo.

journal of ethology was launched in 1998 as *Revista de Etologia* (**RE**).

In 2003 the internationalization of **RE** started, when it was indexed to SciELO (Scientific Electronic Library Online) “a bibliographic database, digital library, and cooperative electronic publishing model of open access journals” (Packer, 2000). SciELO, first established in Brazil in 1997, comprises nowadays

collections of 14 countries – Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Mexico, Peru, Portugal, South Africa, Spain, Uruguay, and Venezuela – with a total of 1,249 journals in 2015.

Two years before completing 20 years, **Current Ethology** will replace **RE**, aiming to embrace more ambitious goals, such as being included in other international databases besides Scielo. **RE** last num-

bers were devoted to evaluate the role of graduation programs in Ethology. Doctoral dissertations and Master theses in the field of Ethology during a period of five years were analyzed (Spinelli de Oliveira and Magrini, 2015; Magrini and Spinelli de Oliveira, 2015), from 2010 to 2014. A sound scenario was found: a total of 826 academic studies (295 Doctoral dissertations and 531 Master theses) were issued; all Brazilian regions were regularly represented; topics such as *Cognition, Communication, Behavioral Evolution, Neuroethology, Evolutionary Psychology* and *Behavioral Theory* were all represented, but *Behavioral Ecology* and *Applied Ethology* stood out. The diverse Brazilian fauna was represented by more than 200 species that were investigated in doctoral dissertations (203) as well as in master theses (223). Two final questions are yet unanswered: where are doctors employed that earned a degree in Ethology and what are they doing? Therefore, the first number of **Current Ethology (CE)** will address these and other questions relevant to understand the current scenario of ethology in Brazil.

The first issue of Current Ethology

The contribution of Soares *et al.* (2016) focuses on topics published by **RE** during its eighteen years of existence. During two periods: from 1998 to 2006 and from 2010 to 2014, issues were regularly presented. Studies listed as “Observational” were prevalent in almost all volumes. Class “Mammalia” was, by far, the most studied taxon of all in those eighteen years of **RE** reports. The Brazilian Southeast region was the main provider of empirical investigation and publications. **RE** published articles from 12 countries, showing its potential as an international media of Ethology.

The career of doctoral holder in Ethology in 2010 was analyzed during six

years after graduation in Brazil (Spinelli de Oliveira *et al.*, 2016). Employability is high: stable jobs are provided by the public sector. Men occupy mainly positions at public universities; most women are at the public and private educational sector or hold fellowships. Both sexes advise academic works and are co-authors of at least one peer-reviewed article per year and doctor¹. The Southeast region contributes with the largest number of graduates, and a clear regional transference of doctors is observed regarding employment, indicating that this region is a disseminator of knowledge about animal behavior within Brazil.

Pinto and Bright (2016) describe four basic universal criteria present in persistent beliefs: intuitibility, predictability, reliability and utility. They argue that the study of belief will require consideration of the evolutionary context through which the neural pathways associated with belief formation, maintenance and endorsement have emerged. They also suggest that rather than operating as genuinely adaptive phenomena associated with evolutionary advantage, belief systems may have emerged as a by-product of evolutionary pressures.

Completing this inaugural volume of **CE**, Barrera and Correio (2016) developed a pilot study of the largest canid of South America, the maned wolf, *Chrysocyon brachyurus*, focusing on interspecific social skills of this wolf, which shares with the grey wolf (*Canis lupus*) a common wolf-like ancestor. The aim of this work was to assess the behavior of one maned wolf raised by humans on interspecific social and cognitive tasks: sociability toward a familiar person and toward a stranger, gazing at the human face to ask for food, and following human cues to locate hidden food. The results show numerous social behaviors and the ability of the maned wolf to learn how to use human cues to solve problems.

Final remarks

We also should reflect upon a question: what is the importance of having a journal devoted to Ethology in Brazil? Brazil developed a sound system of graduation programs along 40 years of state policies (Balbachevski, 2005; Picinin, 2012) and Ethology is an important part of it (Ades, 2010; Spinelli de Oliveira and Magrini, 2015; Magrini and Spinelli de Oliveira, 2015). Also Brazil is continental: it is a large and populous country with a highly diverse fauna and an expressive number of livestock. In these contexts, it is fundamental to maintain a journal dedicated to Ethology, also as an instrument to bring together researchers of animal behavior from other countries, especially from Latin America (Spinelli de Oliveira *et al.*, 2014) as **RE** has done before.

Science in Brazil in the last decade was on the rise, even in “hard areas” (Jorio *et al.*, 2010), supported mainly by state financed programs (Mendes, 2015). However, state policies have changed (Gibney, 2015; Angelo, 2016) and budget cuts are a probable scenario for the near future. In this case, domestic solutions may be a way of maintaining the high academic production in Ethology while keeping high standards. As pointed out before by Grinberg *et al.* (2012), “the reluctance of Brazilian authors to publish in Brazilian journals is historical and no longer justified”. SBET is committed to support **CE** and calls on its associates to do the same. Long live CE!³

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¹ https://www.nobelprize.org/nobel_prizes/medicine/laureates/1973/

² Ata da XI Assembleia do Encontro Anual de Etologia e Fundação da Sociedade Brasileira de Etologia – SBEt realizado aos 7 a 9 de Outubro de 1993. Campus UNESP de Bauru, SP.

³ Elisabeth Spinelli de Oliveira, Wagner Ferreira dos Santos, Wilfried Klein and Leandro Magrini were president, vice president, financial secretary and secretary of SBEt, respectively (2014–2016).

Supplement 1. Abbreviations of Institution names.

Abbreviations	Institutions
PUC MG	Pontificia Universidade Católica de Minas Gerais
UFERSA	Universidade Federal Rural do Semi-Árido
UFJF	Universidade Federal de Juiz de Fora
UFMS	Universidade Federal de Mato Grosso do Sul
UFPA	Universidade Federal do Pará
UFRN	Universidade Federal do Rio Grande do Norte
UFSC	Universidade Federal de Santa Catarina
UFSCar	Universidade Federal de São Carlos
UFU	Universidade Federal de Uberlândia
UnB	Universidade de Brasília
UNESP	Universidade Estadual Paulista “Júlio de Mesquita Filho”
UNIFAL	Universidade Federal de Alfenas
USP	Universidade de São Paulo