

#### **A. TITLE**

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Publishing the Brazil I3N database of invasive alien species on the web for public access and initiating a network of data providers

#### **B. CONTACT INFORMATION FOR PRINCIPAL INVESTIGATOR**

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#### **C. CONTACT INFORMATION FOR MANAGING INSTITUTION**

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#### **D. IF APPLICABLE, A LIST OF OTHER PARTICIPATING INSTITUTIONS**

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Services will be outsourced for a web designer and programmer.



O Instituto Hórus trabalha para desenvolver alternativas de conservação ambiental e integrá-las aos processos de desenvolvimento econômico e social, aos sistemas de produção e à rotina da sociedade.

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## E. PROJECT SUMMARY

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### English

The Brazil invasive species database started in 2003 to store information from a national assessment done by the Horus Institute, The Nature Conservancy, and the Brazil Ministry of Environment. Data from the terrestrial and marine habitats assessments have been incorporated into the database, which now counts 264 species and 9,369 occurrences of species. The results are available through the Horus Institute website as fact sheets. The freshwater assessment data will be incorporated in 2007. The Horus Institute and The Nature Conservancy are developing a national strategy for invasive species with the Ministry of Environment through the Global Invasive Species Programme (GISP) in which facilitating information to the public is one of the key components. Collecting data on invasives is part of the routine for both organizations, especially using scientific events and the website as data catchers. This proposal is aimed at using the I3N website interface to place the Brazil database directly online for public access in integration with the Ministry of Environment of Brazil, as well as initiating a network of collaborators/data providers to improve on existing information.

### Spanish

La base de datos de especies exóticas invasoras de Brasil empezó en 2003 para registrar datos de un relevamiento nacional realizado por el Instituto Hórus, The Nature Conservancy y el Ministerio del Medio Ambiente. Los datos de los informes sobre ambientes terrestres y marinos ya están incorporados a la base de datos, que actualmente cuenta 264 especies y 9.369 ocurrencias. Los resultados están disponibles en el sitio web del Instituto Hórus en formato de fichas técnicas. El Instituto Hórus y TNC están desarrollando, a través del Programa Global de Especies Invasoras (GISP), una estrategia nacional para especies exóticas invasoras con el Ministerio de Medio Ambiente, en que la facilitación de información al público es un de los componentes más importantes. La recolección de datos se ha tornado parte de la rutina de las dos organizaciones, especialmente aprovechando eventos científicos y el sitio web como puntos de contacto con expertos. Esta propuesta tiene por objetivo poner la base de datos I3N de Brasil online en el sitio web del Instituto Hórus en integración con el Ministerio de Medio Ambiente de Brasil, así como registrar una red de colaboradores / proveedores de datos para mejorar el nivel de información existente.

### Portuguese

A base de dados de espécies exóticas invasoras do Brasil começou em 2003 em função de um levantamento nacional realizado pelo Instituto Hórus, a The Nature Conservancy e o Ministério do Meio Ambiente. Dados dos informes nacionais para ambientes terrestres e ambientes marinhos já foram incorporados à base de dados, que atualmente conta 264 espécies e 9.369 ocorrências. Os resultados estão disponíveis no site do Instituto Hórus em forma de fichas técnicas. Os dados do informe sobre águas continentais serão incorporados em 2007. O Instituto Hórus e a TNC estão desenvolvendo com o Ministério do Meio Ambiente, através do Programa Global de Espécies Invasoras (GISP), uma estratégia nacional para espécies invasoras na qual um dos principais componentes é a divulgação de informações ao público. A coleta de dados tornou-se rotina para ambas as organizações, que usam eventos científicos e os websites como principais pontos de coleta. Esta proposta visa colocar a base de dados I3N do Brasil online no website do Instituto Hórus em integração com o Ministério do Meio Ambiente, assim como cadastrar uma rede de colaboradores / provedores de dados para melhorar o nível de informação existente.



## **F. PROJECT DESCRIPTION**

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### **OBJECTIVES AND RELEVANCE**

The objective of this project is to place the Brazil I3N database of invasive alien species online on the website of the Horus Institute for Environmental Conservation and Development. The second objective is to register at least 10 experts and provide them with login and passwords in order to enhance direct contributions to the database.

### **METHODOLOGY**

The I3N web template developed by the Universidad Nacional del Sur will be used to place the I3N Brazil database online. A programmer and a web designer will be contracted to do the work in close integration with the Horus Institute webmaster Rodrigo Chaves Ribeiro and the Executive Director Silvia R. Ziller.

The template will be adjusted to the Brazilian reality with photographs of species present in the country, and logos of partner organizations. The data currently consists of 264 species and corresponding information on species description, native range, characteristics, history of introduction as available, occurrences in Brazil and in other parts of the world, contacts, projects and associated references.

Experts will be invited to join a network of collaborators, and will be provided with a login and password to enhance direct contributions to the database. As there are not many experts on invasive alien species in Brazil, the network will start out small as the objective is to ensure consistency of the data provided, as well as effective collaboration.

### **RESULTS ACHIEVED**

1. The I3N Brazil database will be available online for public access.
2. A network of collaborators / data providers will be initiated.

### **OUTPUTS DELIVERED**

The Horus Institute website has an average of 15,000 hits/month, and has reached peaks of 22,000 hits/month upon media releases on invasive alien species.

1. The general public will have access to the I3N database through internet services.
2. Experts will have privileged access to collaborate with information to the database and gather data for research and publications.

### **INNOVATION GENERATED**

The I3N database is the first effort in Brazil to register information on invasive alien species. The Horus Institute website is the only website that specializes on the issue in Brazil and the main reference to the subject in Brazilian Portuguese, working in collaboration with the Portugal Superior Agrarian School of Coimbra.

### **MEASURES OF SUCCESS**

1. Database online and functioning by August 2007, dismissing the need for laborious updates of fact sheets on the web. To be evaluated by Horus Institute and I3N.
2. Number of collaborators / data providers registered with login and passwords by September, 2007, and/or monthly additions.
3. Number of hits in the website compared to earlier records of hits after the database is online (July 2007 or earlier).
4. Number of articles / news in the media after the database is online (July 2007).



## SPECIFIC DESCRIPTION OF THE WAYS IN WHICH THE PROJECT POSSESSES THE REQUIRED CHARACTERISTICS

This project has potential for generating awareness on the presence and impact of invasive alien species, as well as on methods for control work. It also has potential for replication to other countries, as the Horus Institute, the Universidad Nacional del Sur of Argentina and The Nature Conservancy have implemented the database in several countries in South and Central America (Uruguay, Paraguay, Chile, Ecuador, Peru, Argentina, Brazil, Dominican Republic, Jamaica, Bahamas, Costa Rica).

The value of the project for the Horus Institute is that it allows for more qualified access to the data on invasive alien species in Brazil and in South America, creates a unique opportunity to develop a network of collaborators/data providers in the country and beyond, creates a strong link for cooperation with the Ministry of Environment and IABIN Focal Point Bráulio Dias in the development of a national strategy and priority actions on invasive alien species, provides good opportunities for interaction with the media and for building on public awareness, consolidates the Horus Institute as the organization leading the issue of invasive alien species in Brazil (see Annex 1), saves much time spent in updating the fact sheets currently displayed on the website and creates an opportunity and stimulus for the Ministry of Environment to create mirror websites to host the information.

The Horus Institute and The Nature Conservancy South America Invasive Species Program have been providing data as requested by many different people in the government, in academia or the general public, performing all the searches and filtering as requested. Having the database online will make it easier for the public to find specific information and will reduce the amount of personalized requests, freeing time for other activities.

### Metrics

The Brazil I3N database currently has records for 264 species, 9,369 occurrences in Brazil, 857 references + 69 ITIS references, 572 contacts, and 28 projects. The data for each species is collected from interviews with experts, secondary references (which are quite scarce in South America), and the web. All fields in the database are completed as information is found and as new data comes in from collaborators. The database covers all taxonomic groups of invasive species that threaten biodiversity, and a few species that threaten human health, such as *Aedes aegypti*, causer of dengue fever.

### Time frame and workplan

The project will be carried out between January and October, 2007.

#### *Workplan*

Activity	In charge	Month									
		01	02	03	04	05	06	07	08	09	10
Hire programmer and/or web designer	Horus Executive Director	x	x								
Place database online using operational manual	Programmer		x	x							
Adjust design of database	Horus webmaster			x	x						
Invite collaborators/data providers to form network	Horus Executive Director				x	x	x	x	x	x	x
Test data entry and inclusion in database through Administrator	Horus staff + chosen collaborators							x	x	x	x
Update website database page	Horus Executive Director + webmaster								x		



Announce online database to media, generate news articles	Horus Executive Director									x	x	x
Routine maintenance	Horus webmaster									x	x	x
Preparation of technical and financial reports	Horus Executive Director										x	x

Relevant literature cited as footnotes

None

Answers to questions in the proposal

**i. What are the user communities in your country that would be interested in the product of this project?**

The entire country of Brazil and other countries in South America, especially those who have already adopted the I3N database and are looking for data on the invasive species that are common among countries.

The Brazil Ministry of Environment, for the contribution of this project in implementing CDB guidelines on invasive alien species, and for a Clearing House Mechanism.

**ii. How will the data be updated and maintained into the future? If changes in information are made, how will this be carried into the publicly accessible record?**

The Horus Institute and The Nature Conservancy South America Invasive Species Program have maintained data collection as a permanent activity since 2003. Changes in the database happen daily, as new data comes in either through collaborators or through our efforts to collect information at scientific events.

Maintenance of the I3N database is a routine activity, and once it is setup on the website it will only save work time for preparing and updating fact sheets.

**iii. How will you comply with I3N standards? The preferred method is to use the I3N database, which includes all desired fields.**

The Horus Institute is directly responsible for the development of the I3N database with the Universidad Nacional del Sur, and already complies to these standards.

**iv. What is your institution's expertise in informatics and IAS?**

The Horus Institute is a national reference on IAS and developed the I3N database and the Horus website, the only current sources of information on IAS in Brazil and one of the scarce references in South America.

**v. How does your institution interact with other institutions in your country that manage data on IAS or related themes?**

The Horus Institute works in collaboration with experts on invasive alien species in Brazil and abroad, especially for gathering data and validating information on the database. It also works closely with The Nature Conservancy South America Invasive Alien Species Program (also directed by the Horus Institute Founder and Executive Director) for maximum results.

The Horus Institute wishes to develop a network of practitioners and experts on IAS in the spirit of the Pacific Islands Learning Network for people to exchange experience in controlling invasives as well as for inclusion of more information in the database.



**vi. What has been your involvement in IABIN activities? What is your relationship to the IABIN focal point and I3N lead in your country?**

The Horus Institute Founder and Executive Director is the I3N Lead for Brazil and has worked in close collaboration with the Ministry of Environment. Bráulio Dias, the IABIN focal point, is not the person now directly in charge of developing the invasive species theme for the Ministry, although he does represent Brazil at the conferences of the parties for the Convention on Biological Diversity. The person in charge of developing a national strategy for invasive alien species in Brazil and a workplan under the Brazil Ministry of Environment – Global Invasive Species Programme (GISP) agreement is Lidio Coradin, Director of Genetic Resources. We have been working in close cooperation with Mr. Coradin and Mr. Paulo Kageyama, Director of Biodiversity and Forests.

The Ministry of Environment recognizes the role of the Horus Institute in developing the issue of invasive alien species in Brazil and beyond (see Annex 1), and Dr. Bráulio Dias has been communicated about this proposal (see Annex 2).

**vii. Provisions to ensure data quality.**

The quality of the data gathered and included in the database increases as the information is displayed and available for consultation. Exposing the data is the best way to get feedback from experts all over the country and to complement existing information.

The database itself has indicators of certainty for information. There are validation boxes regarding taxonomy of the species and certainty of identification, and regarding certainty of knowledge on occurrences. These are indicators for the database administrator to realize the information needs reviewing in the future, as other experts manage to correct and improve on existing information.

Apart from these external processes, we have interns permanently searching for complementary data from different secondary sources that are also valuable for reviewing existing data and adding new records to the database.

**viii. Monitoring and evaluation methodology.**

The milestones of the project are:

- a) setting the database up on the Horus Institute website;
- b) adjusting the web template to the Horus Institute standards in the Brazilian context;
- c) registering a number of at least 10 collaborators / data providers to test the system;
- d) issuing announcements in the media;
- e) monitoring the number of hits in the website once the online database is announced.

The project will be evaluated as these milestones are reached, and refer mainly to the correct functioning of the online database.





Instituto Hórus  
de Desenvolvimento e  
Conservação Ambiental

## G. PROJECT BUDGET

Category	Item	IABIN funds US \$	Matching funds US \$	Total US \$
Consultant services	Programmer	3600	0	3000
	Web designer	2400	0	3000
Operating costs	Webmaster	1200	1200	2400
	Project management	2800	8000	10800
	Administrative costs	0	1600	1600
Total		10,000	10,800	20,800

November 9, 2006



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