

## GISIN moves forward

Moves towards the establishment of a Global Invasive Species Information Network (GISIN) took a major step forward at a recent Experts Meeting convened by Annie Simpson and her team from the U.S. National Biological Information Infrastructure (NBII), in Baltimore in April this year. The meeting followed a series of three previous events organised under the GISP partnership network, and was attended by 76 participants from 26 countries. Funding and support for the event was provided by the Bureau of Oceans and International Environmental and Scientific Affairs (OES) of the U.S. Department of State.

Scientific and technical information on IAS is at present distributed in a wide variety of databases, many of them using incompatible standards and protocols. The objective of GISIN is to enable these databases to “talk to” one another, thereby facilitating broader access to IAS information to international observers from around the world. Timely access to such information is especially critical in countering new invasions of IAS.

Incentives for sharing data under a GISIN, include:

- increased professional recognition for developers of databases
- metadata strategies that help assure that providers of data are properly credited

- tools to make preparation of standardised data and metadata easier and more automatic.

The Experts Meeting was attended by a mix of IAS and database experts, and was aimed at:

- the establishment of common gateways to allow for global searches and comparisons of IAS information, and
- reaching agreement on common approaches to the types, formats and field names of IAS information collected in online databases.

At the meeting, participants working on databases agreed to catalogue a minimum set of simple but widely applicable data types, and to express them in standard formats (currently XML-based), readily accessible to the other nodes. While data types and their standards are still evolving, they currently include content such as fact sheets, profiles, non-native and invasive checklists, experts, observations, specimens,

bibliographies, identification or diagnostic information, maps, images, and projects – all of which are to be tagged with a resource identifier and authority (publisher information).

Participants also forged new partnerships and agreed on future collaboration



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## FROM THE DESK OF THE DIRECTOR

May 31 marked the end of the first year of the GISP Secretariat – a year which, despite some ups and downs, I believe has been remarkably productive, and which has ended with a promise of even better to

come. During the year we have, amongst other things:

- re-established GISP as a force in the international arena, attending meetings ranging from Regional Seas, to a Weeds Science Symposium, the World Parks Congress, and COP 7 of the CBD;
- provided technical advice to projects such as those in the Galapagos, Seychelles and China;
- launched a new website, a new corporate image, and a series of awareness-raising publications, the first of which was entitled “Africa Invaded”;
- commissioned the development of a number of new technical publications and a training course;
- fulfilled a number of inherited commitments (such as publication of the GISP Regional Workshop Reports); and, most importantly,
- renewed relationships with existing partners and laid the basis for new ones.

All of this with a group which, for the better part of the year has comprised only three professional officers with some administrative support!

Of the things to come – there are a number of exciting proposals on the table, the most significant of which are:

- A GISP/UNEP/GEF project on Capacity Building and Awareness-Raising for IAS management which was recently accepted into the GEF pipeline. This will involve five pilot countries from developing regions, and will include both national and regional activities.
- A proposal aimed firstly at fostering much closer working relationships between the GISP Secretariat, the CBD Secretariat and a range of other international conventions and organisations; and secondly at enabling GISP to fulfill its commitments to the CBD. This will include activities around the Clearing House Mechanism, the GTI, the Global Strategy for Plant Conservation (especially Target 10) and thematic work programmes such as marine and coastal ecosystems.

As we enter our second year then, I would like to invite all those interested in IAS issues to visit and contribute to our website, to contact us directly, and most of all, to join forces with us in our efforts to reverse the tide of IAS invasions. We look forward to hearing from you.

**Dr Lynn Jackson**

*Acting Director: GISP Secretariat*

# www.gisp.org

Visit our website at [www.gisp.org](http://www.gisp.org) for daily updates on IAS news, events, jobs and much more...

The GISP website, hosted by webmaster Martin Cocks and team from the International Ocean Institute – Southern Africa, based at the University of the Western Cape ([www.ioisa.org.za](http://www.ioisa.org.za)), was established in November 2003 and has grown steadily since then. With much more being planned for the future, the website already has lots to offer the visitor. The latest – and most comprehensive – addition is the “**global interactive map**” where IAS information on all countries and regions across the globe can both be uploaded and downloaded.

The aim of this comprehensive global map is to not only

provide the user with easily accessible, freely available IAS information, but also to provide a mechanism through which governments, organisations and individuals could share their information with others, as per COP Decision VI (23). Complementing the GISIN initiative (see front page), this map will link into GISIN once the latter becomes operational, allowing access to a huge amount of IAS data through various databases. Parties will soon also be able to do this through an IAS portal on the CBD website ([www.biodiv.org](http://www.biodiv.org)).

Although already accessible through the GISP site, the global map will be updated and maintained on a continued basis with new information, links and data. Please send us your IAS information to [gisp@uwc.ac.za](mailto:gisp@uwc.ac.za) to ensure that it gets incorporated.



**Continued from page 1**

in electronically exchanging IAS information. Many agreed to share database structures and to link existing databases. They recommended that parties collecting IAS information in agricultural and natural ecosystems, collaborate and support the development of full specifications for the establishment of a GISIN. To this end, an interim GISIN Steering Committee has been selected to develop a program of work. Members are:

- **Dr Malika Boufour**, Ministère de l'Agriculture, Direction de la Protection des Vegetaux, Morocco
- **Dr Hannu Saarenmaa**, Global Biodiversity Information Facility (GBIF) Secretariat, Denmark
- **Annie Simpson**, National Biological Information Infrastructure; US Geological Survey
- **Dr Soetikno Sastroutomo**, CAB International and ASEANET, Malaysia
- **Dr Yan Xie**, Institute of Zoology, Chinese Academy of Sciences, China, and
- **Dr Silvia Ziller**, GISP Board, Horus Institute and The Nature Conservancy (TNC), Brazil.



**For more information on GISIN, including workshop proceedings and the "Baltimore Declaration", which was drawn up during the closing session of the meeting, visit <http://invasivespecies.nbi.gov/as/gisin.htm>**



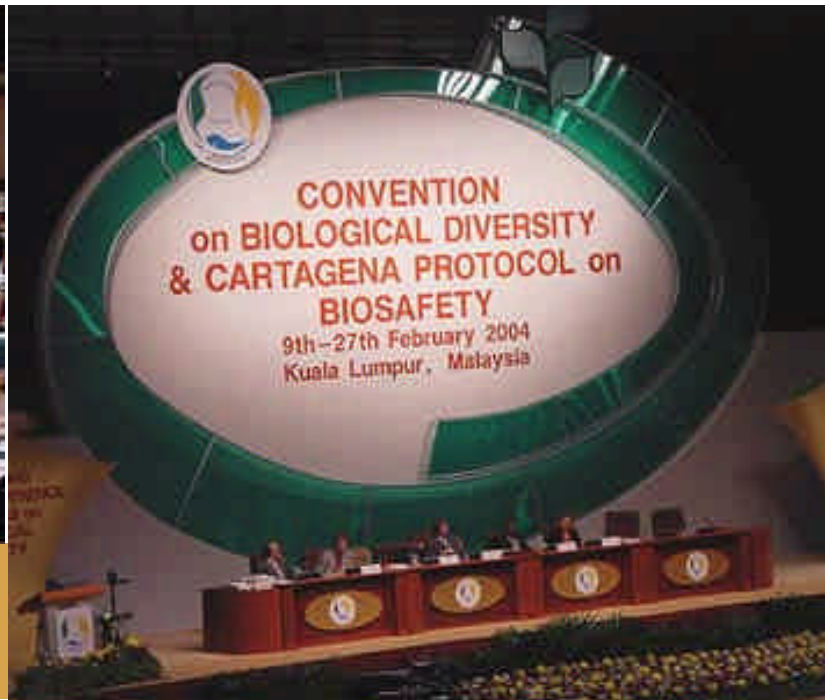
U.S. Department of State  
Bureau of Oceanic and  
International  
Environmental and  
Scientific Affairs







Seventh Conference of the Parties to the Convention on Biological Diversity, Kuala Lumpur, Malaysia



# COP 7 – Invasive Alien Species on the Agenda

IAS as a cross-cutting issue, featured on the agenda of many discussion forums during the Seventh Conference of the Parties to the Convention on Biological Diversity (CBD), held in February 2004, in Kuala Lumpur, Malaysia. For the newly established GISP Secretariat, COP 7 presented a unique opportunity to meet and interact with the many GISP partners, country delegations, donor agencies and other role players that were present.

At the official side event of GISP, **Dr Hamdallah Zedan**, Executive Secretary of the CBD and Dr Kathy MacKinnon of the World Bank both emphasised the growing importance of IAS issues and the urgent need to address these effectively under the GISP partnership network. The side event, attended by over 70 people, also included a joint presen-

tation by Dr Lynn Jackson of the GISP Secretariat with Dr **Wai Hong Loke**, regional CABI representative for South East Asia, and **Imene Meliane** from the IUCN Marine Programme.

The GISP exhibition booth and material were well received by delegates and great interest was shown in current and planned activities. Many new partnerships emerged, while existing ones were rejuvenated, allowing for a number of in-depth meetings with key role players and partner organisations. As with previous COP events, COP 7 provided a valuable global platform for progress among the GISP partnership network and its shared activities.





Imene Meliane



Carnet Williams, TNC



Dr Hamdallah Zedan



Wai Hong Loke

**Decision VII (13) of COP 7 deals with IAS as a cross-cutting issue**

In this Decision, Parties, organisations and governments were called upon to:

- **mainstream IAS management activities**, particularly with reference to poverty and inequity
- **promote more collaboration** between the CBD, other conventions and organisations in developing mechanisms to address the threats posed by IAS
- **ratify and implement** the new ballast water convention
- **strengthen institutional coordination** among international organisations, specifically in regard to IAS as a trade-related issue

- **address the persisting gaps and inconsistencies** in international regulatory frameworks, and

- **address the priorities for practical actions** identified in this and previous COP decisions.

Decision VII (13) also specifically encourages funding institutions and development agencies to support developing countries in addressing IAS threats.

**During COP7, New Zealand offered to fund and host an *ad hoc* Technical Expert Group, still to be established, that will address the gaps in the regulatory frameworks mentioned above. A first meeting of this group is likely to take place in 2005.**



Dr Lynn Jackson, Acting GISP Director speaking with delegates at the GISP Exhibitions booth.



# The GISP Partnership

## Network in Action

GISP's aim is to provide an effective global partnership network for all countries, regions, organisations and individuals involved in the world-wide fight against the growing danger posed by IAS. GISP recognises that invasive species, climate change and habitat destruction, singly and in combination, are the biggest environmental issues facing our current world. In order to address these growing threats, it is essential that we join forces by effectively integrating and combining efforts and resources.

This section of the GISP newsletter highlights but a few examples of the many diverse and significant IAS activities undertaken by GISP partners.

*All GISP partners are invited to send news and contributions to newsletter editor, Kobie Brand at GISP, e-mail: [brandt@nbi.ac.za](mailto:brandt@nbi.ac.za) for inclusion in future editions of GISP News.*

### Part of Global Workshop Series

The West African workshop was the last in a series of seven regional IAS workshops held across the globe by GISP and its partners, in order to raise awareness and assess the status of information on the growing danger posed by IAS all over the world. These workshops were made possible by generous support from the United States Government, the GEF and various GISP partners, individual countries, host organisations and committed individuals. With support through the National Fish and Wildlife Foundation (NFWF) in the United States, GISP has recently published workshop and country reports from the following regions:

- South and South East Asia
- Southern Africa, and
- The Austral Pacific region.

These reports are available from the GISP secretariat and downloadable from the website.



## CABI hosts an IAS workshop for West Africa



The West African regional workshop on *"Prevention and Management of Invasive Alien Species: Forging Cooperation throughout West Africa"*, took place on 9 -11 March 2004, in Accra, Ghana. Attended by delegates from sixteen West African countries, the workshop received extensive regional media

coverage and succeeded in achieving its major objectives of raising the profile of IAS issues and the associated socio-economic and environmental costs, while fostering regional cooperation between these states.

The workshop was co-hosted by the Government of Ghana, CAB International and the Government of the United States of America. Sponsorship was provided by the U.S. Department of State, with additional support from GISP. Attracting high profile delegates from all of the participating countries, the event was opened by the US Ambassador to Ghana, the Honourable Mary Carlin Yates, Dr Matthew Antwi, the Deputy Minister of Environment and Science in Ghana, Dr Clement Ellede, Deputy Minister of Food and Agriculture (MOFA), Ghana, Dr Dennis Rangi, the Director of CABI – ARC (African Regional Centre) and Prof. Emmanuel Owusu-Bennoah, Acting Director-General of the CSIR, Ghana.

After three days of enthusiastic participation, the delegates agreed that urgent action was needed in order to address the seriousness of IAS in this region and recommended the following priority actions:

- establishing IAS national steering committees and focal points



- establishing a regional IAS coordinating mechanism (CABI – ARC to provide interim support)
- developing national IAS strategies and action plans
- promoting awareness of IAS impacts and threat at national and regional levels
- building of national and regional IAS management capacity
- developing a regional IAS legal framework
- improving the regional IAS knowledge base
- enhancing regional communication and information dissemination, and
- mobilising financial resources as a matter of greatest urgency.

The above actions are contained in a "Workshop Declaration" adopted and distributed at the end of the workshop to encourage immediate action following the event. This Declaration and workshop proceedings are available in French and English from workshop organiser, Dr Sarah Simons and her team at CABI - ARC:

P.O. Box 633-00621, Nairobi, Kenya.

Tel: +254 20 524450/62. Fax: +254 20 522150.

E-mail: [cabi-arc@cabi.org](mailto:cabi-arc@cabi.org).

*The GISP Secretariat was represented by Kobie Brand, while GISP Board members Dr Dennis Rangi (CABI) and Dr Geoffrey Howard (IUCN) represented the GISP Board.*

# The GISP Partnership

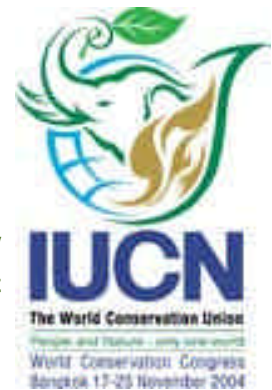
## Network in Action

### 3rd IUCN World Conservation Congress

Bangkok, Thailand, 17-25 November 2004

#### *People and Nature – Only One World*

The 3rd IUCN World Conservation Congress aims to explore and demonstrate how conservation knowledge relates to many of the world's most pressing development and sustainability challenges – be they productivity, poverty, peoples' rights to a healthy environment or profitable enterprises.



The Congress is held every four years, and this year is set to be the biggest event ever, representing the largest democratic environmental forum in the world, where governments, NGOs and other role players establish priority environmental issues and guide the IUCN policy and programme.

The Congress is an assembly of over 1000 IUCN member organisations. It plays a unique and urgent role in

bringing the knowledge we have about biodiversity, ecosystems and species into the mainstream of development decision-making in our societies.

The Congress will have three distinctive but related elements:

- IUCN Commission Meetings
- The World Conservation Forum; and
- The Members Business Assembly.

The Commission meetings will set the priorities for conservation work for the coming four years. They will discuss new ways of addressing species extinction, improving management of protected areas, enacting new laws to conserve nature, ensuring that fair benefits flow to rural people from natural resources, building understanding of how ecosystems

**“In Bangkok, the IUCN family will present more comprehensive, accurate and up-to-date evidence on the state of biodiversity on our planet than ever before.”**

Achim Steiner, IUCN Director General

function, and improving public understanding of conservation.

The World Conservation Forum is expected to attract over 3000 representatives of States, government agencies, global business leaders, scientists, politicians, civil society and youth. It will discuss and define solutions for urgent problems such as the loss of species and ecosystems, globalisation and related health

concerns, poverty alleviation, and economic and legal steps to ensure the sustainable use of natural resources.

**According to Jeffrey McNeely, IUCN Chief Scientist, the Forum will address issues such as the economic bill resulting from the invasions of alien species; ways in which payments for ecosystem services could improve the livelihoods of remote rural communities; and what could be done to prevent the collapse of global fisheries.**

The Members' Business Assembly, the core governance process of the Union, where both government and non-government members will assess IUCN's performance, elect their officers, agree future directions of the Union's Programme and determine governance and institutional capacity needs to undertake the Programme. Members will also discuss and adopt Resolutions (targeting IUCN) and



Recommendations (targeting third parties) addressing conservation issues of global concern, institutional policies, calls for programme and commission actions, and institutional governance and administrative policies.

### GISP and Invasive Species at the Congress

**GISP regards IUCN's Bangkok Congress as one of the pivotal conservation meetings of the next few years, and will play a strong role in Bangkok. We expect to engage in a variety of ways, in close collaboration with our partner organisations, by:**

- **holding a Conservation Platform event to launch new products and partnerships**
- **exhibiting of our products and services on invasive species**
- **contributing to one or more of the Global Synthesis Workshops, focusing on a number of topics including trade, agriculture, economics and the accelerating rate of biodiversity loss**
- **displaying several posters on current lively topics; and**
- **supporting our partner, The Nature Conservancy, in a sponsored workshop on affordable strategies by which developing countries can tackle the IAS problem.**

**The WCC promises to be an important, eventful and lively forum. We look forward to some excellent collaborations and discussions. For more information on the IUCN and the upcoming Bangkok Congress, visit [www.iucn.org](http://www.iucn.org) or contact**

- **Dr Steve Edwards, Senior Adviser – World Conservation Congress at [steve.edwards@iucn.org](mailto:steve.edwards@iucn.org)**
- **Mrs Jane Ganeau, Congress Officer at [jane.ganeau@iucn.org](mailto:jane.ganeau@iucn.org), or**
- **Mrs Corli Pretorius, head of Global Communications at [corli.pretorius@iucn.org](mailto:corli.pretorius@iucn.org)**

## What is the IUCN?

Created in 1948, IUCN – The World Conservation Union brings together 75 States, 108 government agencies, 750 plus NGOs, and some 10,000 scientists and experts from 181 countries in a unique worldwide partnership. IUCN's mission is to influence, encourage and assist societies throughout the world to conserve the integrity and diversity of nature and to ensure that any use of natural resources is equitable and ecologically sustainable.

IUCN is the world's largest environmental knowledge network and has helped over 75 countries to prepare and implement national conservation and biodiversity strategies. IUCN is a multicultural, multilingual organisation with 1000 staff located in 62 countries. Its headquarters are in Gland, Switzerland

IUCN's networks support:

- **partnerships** – between institutions and people to manage and restore ecosystems and protect threatened species
- **knowledge** – providing society with the information and tools it needs to secure a sustainable future
- **innovation** – harnessing economic incentives and social power for sustainability
- **action** – to promote the sharing of costs and benefits of conservation and the sustainable use of nature and natural resources

IUCN's six Commissions are principal sources of guidance on conservation knowledge, policy and technical advice and are implementers of the programme. Commission members are volunteers entrusted to develop and advance the institutional knowledge and experience and objectives of the IUCN. The six Commissions focus on the following technical areas:

- Species Survival
- Protected Areas
- Environmental Law
- Education and Communication
- Environmental, Economic and Social Policy, and
- Ecosystem Management

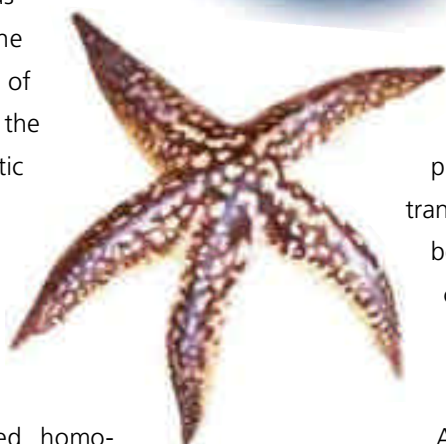
# IMO Convention aims to Standardise International Ballast Water Management

Adnan Awad *GloBallast – South Africa*

**The Convention on Biological Diversity has made a number of significant contributions to global biodiversity conservation, including the identification of shortcomings or gaps in existing efforts tackling this issue.**

One such gap is our understanding of marine biodiversity and the plethora of threats facing it. Historically, attention has focused on more obvious concerns such as marine pollution and overexploitation of marine resources. However the more subtle threat of aquatic invasive species has more recently emerged as a major concern.

Unlike many terrestrial problems with invasive species, the human-mitigated homogenisation of marine flora and fauna is largely irreversible, and is occurring in habitats we can only observe with irregularity and distance. Furthermore, invading species often capitalise on and/or exacerbate other forces impacting marine environments. As we acknowledge that aquatic invasive species are now considered the second greatest threat to marine biodiversity after overexploitation, we must also come to terms with the fact that there has been no comprehensive international legislation aimed specifically at combating any aspect of this issue. That is, until recently.



## A new beginning

At a diplomatic conference held in London in February of this year, member states of the International Maritime Organisation (IMO), a specialised agency of the UN responsible for shipping matters, adopted the new International Convention for the Control and Management of Ships, Ballast Water & Sediments. On one hand this marks the end of a long struggle that has led up to this milestone in protection of the oceans. On the other, it hails the beginning of a lengthy process to put in practice the goals and objectives it contains, and to transform it into the powerful tool it has the potential to be. But this Convention has not come without some compromise and a degree of controversy, leaving an atmosphere of anticipation around those tasked with its implementation.

At the heart of the Convention lies the issue of aquatic alien species transfers through ships' ballast water. There is little doubt that ballast water has become the most serious vector for aquatic species introductions, with the fouling organisms on ships' hulls constituting in second place. The increasing numbers of ships in the global fleet (85,000 at present), coupled with their advances in size and speed, which increase the ability for some species to survive a voyage, have heightened the focus on and urgency of this concern over the past two decades. There has been no shortage of examples of major invasions facilitated by ballast water transfers, resulting in impacts to economies,



human health and of course entire ecosystems. In fact, as human reliance upon the oceans increases for food production, tourism and coastal development, the nature and magnitude of impacts only grows clearer. At present we lack the means for comprehensively identifying and quantifying such impacts. For this reason, the extent and significance of aquatic invasions have remained under the shadow of the already overwhelming concerns of terrestrial invasive species management.

### **The Ballast Water Working Group**

The 1992 Earth Summit in Rio de Janeiro marked one of the first international calls for addressing the issue of aquatic alien species at the global level. At that point, the mounting concern over the role of ballast water had already led to the creation of a Ballast Water Working Group within the Marine Environment Protection Committee of the IMO. By 1993 this group had helped the IMO develop and publish the voluntary *Guidelines for the Management of Ships' Ballast Water*, which were further updated in 1996. For several years this voluntary management tool represented the best option available for international ballast water management. The guidelines focus on the practice of mid-ocean ballast water exchange as the primary mechanism to reduce the risk of species transfer. This practice involves discharging the original coastal water in mid-ocean and replacing it with open ocean water, on the premise that fewer planktonic organisms are present on the high seas, and that therefore this water would present much less of a threat to the destination port and coastal habitats. Though controversy reigns over the real-world efficacy of this technique, it remains the primary tool being promoted in the new Convention, at least in the absence of better technology.

The guidelines, however, were not widely implemented, and pressure gradually increased for the IMO to finalise mandatory international legislation. The IMO initially considered creating this as an annex to the existing Convention on Marine Pollution (MARPOL 1973/78), but concern over the unique and biological nature of the ballast water issue prompted an independent approach to be taken. As the IMO was working towards developing a new legal instrument, it also launched a programme to help pave the way for ballast water management in developing regions of the world.



**Continued overleaf**



## GloBallast

The IMO/UNDP/GEF Global Ballast Water Management Programme (GloBallast) was initiated in six countries in 2000, and has since been working towards standardising ballast water management throughout the major developing regions of the world in preparation for the pending Convention. By the time the World Summit for Sustainable Development (WSSD, Rio + 10) was held in Johannesburg, the new IMO Convention was already taking shape, but delays in its finalisation were beginning to frustrate the international community. WSSD reiterated the call for the IMO to finalise and adopt the Convention, in order to avert the growing concern over potential unilateral action to combat the ballast water threat at national and even port levels.

The shipping industry followed suit with support for the IMO's efforts, in order to ensure that a uniform international standard would govern their activities, rather than having to conform to a diverse array of national standards. Finally, in February 2004 the IMO adopted the new Convention at a diplomatic conference attended by delegations from 74 of its member countries.

Although the Convention does continue to promote mid-ocean exchange of ballast water as an interim option, it recognises the limitations of this technique and aims to push the R&D community to develop a better alternative. The past few years have seen an explosion of research into ship-board treatment technologies, as the potential global market for such a solution is estimated in the tens of billions of dollars.

### Defining a ballast water quality standard

So, in effect, the Convention proposes a new direction for ballast water management. It does this by defining a ballast water quality standard that must be met before the water can be discharged from a vessel. In other words, organisms in the ballast water must be killed, deactivated or removed.

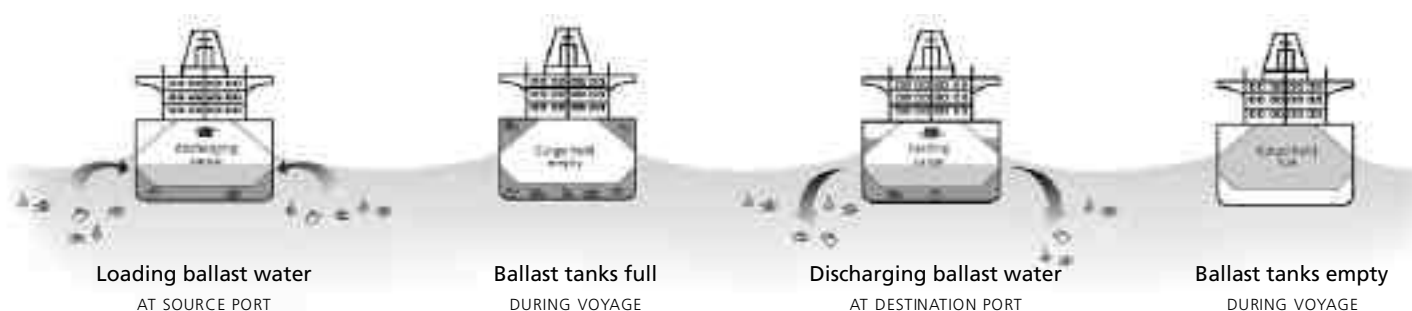
However, the Convention recognises that there is currently no ship-board technology available that can meet the proposed discharge standard. (See box 1).

Heated international debate over this standard continued right up to the final conference, with proposals ranging from 0.01 organisms per cubic metre to 100 organisms per cubic metre. The more conservative argument was that the standard must be biologically meaningful, and also serve to push technology towards a goal. Others argued that such a goal must be more easily obtainable by the R&D community in order to be realistic. A representative from the R&D community commented that the less stringent standard of 100 organisms per cubic metre could be likened to natural seawater conditions, and thus presented no challenge to researchers. Therefore the resulting compromise of 10 was reached, providing a starting point for the Convention, and fodder for ongoing debates.

The Convention will come into force 12 months after at least 30 countries, representing 35 percent of world merchant shipping tonnage, have ratified it. Parties to the Convention are given the right to take more stringent measures than those required, as long as these remain consistent with international law, and don't present any greater harm than that which they seek to prevent. Target dates for compliance with the new standard are detailed in the Convention, and range from 2009 for new ships to 2016 for full compliance by all vessels.

### Ratification of the Convention

Several countries are now actively pursuing ratification of the Convention, and coming to terms with its implications. The initial challenges for countries lacking any current ballast water controls are largely legislative and institutional. Some countries where ballast water management has been an issue for some time, such as the U.S. and Australia, may be faced with different obstacles, and ensuring congruence





with this new treaty may involve changes to the status quo. Currently, Australia is operating on a risk-based system that allows ships to discharge unmitigated ballast water if that water is not considered to pose a serious risk. In the U.S. several concerned regions have been pushing for updated national legislation that goes above and beyond the standard proposed in the new Convention. Political pressure to ratify the Convention as is may stifle this pressure for a more stringent national regime.

Representatives from the shipping industry have expressed concern over certain aspects of the Convention, but have reassured the IMO of their longterm commitment to cooperation and compliance with the international treaty. As implementation progresses over the next several years, specific vessels will be afforded concessions through the Convention to work with the R&D community to help improve the state of technologies available for managing ballast water. With several such technologies looming on the horizon, it is already foreseeable that the threat of species introductions through ballast water transfers will be significantly reduced in the near future. Although ballast water is only one of several human-related mechanisms transferring aquatic species around the world, the new Convention provides a major step towards curbing this threat to marine biodiversity. Regardless of any perceived weaknesses, it lays a foundation for work to begin, and for further technological advances to be made.

## Convention Standards for Ballast Water Management

Regulation D-1 *Ballast Water Exchange Standard* – Ships performing Ballast Water exchange shall do so with an efficiency of 95 per cent volumetric exchange of Ballast Water. For ships exchanging ballast water by the pumping-through method, pumping through three times the volume of each ballast water tank shall be considered to meet the standard described. Pumping through less than three times the volume may be accepted provided the ship can demonstrate that at least 95 percent volumetric exchange is met.

Regulation D-2 *Ballast Water Performance Standard* – Ships conducting ballast water management shall discharge less than 10 viable organisms per cubic metre greater than or equal to 50 micrometers in minimum dimension and less than 10 viable organisms per milliliter less than 50 micrometres in minimum dimension and greater than or equal to 10 micrometers in minimum dimension; and discharge of the indicator microbes shall not exceed the specified concentrations.

## What is Ballast Water?

Ballast water is taken up into special ballast tanks in order to stabilise a ship when it is not carrying cargo during ocean voyages. Large bulk carriers can hold up to 150,000 tons of ballast water. It is an essential to the ships' safety at sea, and has become an integral part of modern shipping.



# Global Invasive News

## BOCA GRANDE, FLORIDA

### Iguana invasion



**B**oca Grande, a small tropical island near Charlotte Harbor, faces a serious problem. Iguanas from tropical forests in **Mexico, Central and South America**, now outnumber the island's human population of about 1000 year-round residents, by more than 2 to 1.

Causing a hassle for islanders by "crawling all over the place" into homes, attics, air conditioning ducts and even through plumbing emerging from toilets, these reptiles are also feared to impact negatively on native species, in particular the endangered gopher tortoise by getting into their giant nesting burrows. They are also known to eat plants, including native flowers and garden vegetables.

Descendants of released or escaped pets, these iguanas have been on the island for at least 25 years, where in the absence of natural predators, they have been growing steadily in numbers. The island invaders are mostly the Mexican spiny-tail species. Local residents are taking up arms (some literally with pellet guns) – mainly through the development of a community plan to guide growth and development on the island. Plans include deploying iguana catchers, much the same as animal control officers.

These creatures have increasingly become a regional problem, with the **Florida Keys** already facing a similar situation. Although locals and visitors alike are attracted to iguanas, all agree that, to avoid serious environmental and tourism impacts, they need to be controlled.

Noting that iguanas have become pests in **Miami and Los Angeles**, due to dumping of unwanted pets in city parks and in the wild, chief veterinarian at Zoo Negara in **Malaysia**, Dr Vellayan Subramaniam, recently warned against the danger of a similar situation developing in this country, following a marked increase in the trade of iguanas as Malaysian pets.

Sources: Wendy Fullerton, published by [www.newspress.com](http://www.newspress.com) on April 26, 2004 and Tan Lee Kuen published in <http://thestar.com.my> on April 24, 2004.

## SCOTLAND

### Lochs invaded

**F**irst spotted in February by consultants conducting an environmental assessment for a ferry-terminal development at Cairnryan, and later confirmed by another survey, Jap or wire weed (*Sargassum muticum*) is the newest reported invasive to **Scottish waters**.

According to a report by the Scottish Natural Heritage (SNH) published on 22 April this year, this unwelcome seaweed is one of 24 aquatic alien species now jeopardising the delicate ecological balance of Scottish sea lochs.

Jap weed is widespread along the **English south coast**, extending into the **Welsh coast** and into **Northern Ireland**. Marine scientists are not sure how it was introduced to the loch, but many believe that it became detached from the hulls of ocean-going ship; was discharged with ballast water, or traveled on shellfish and related equipment imported from **China** or **Canada**.

Apart from clogging water-intake pipes and smothering native seaweed species, Jap weed could, if it becomes established, have a severe and ongoing impact on the multi-million-pound shellfish industry in Scotland, by damaging equipment and interfering with operations.

Sources: "Natural Heritage Trends: The Seas around Scotland" – a report published by the Scottish Natural Heritage, 22 April 2004 and The Scotsman, 23 April 2004.

## CHILE

### Native forests invaded by exotic insect from Europe

The Cypress aphid, *Cinara cupressi*, a European native insect, was first detected in Chile in September 2003, when it attacked exotic plantations of *Cupressus* trees. Current surveys indicate that the aphid has spread widely across the country, affecting *Cupressus* as well as a number of other forest plants. Literature searches have revealed that in Africa the aphid also attacked the genera *Callitris* and *Widdringtonia*, which have a phylogenetic relationship with *Fitzroya*, *Dacrydium* and *Pilgerodendron*, all of which are native to Chile. This means it is quite likely that *C. cupressi* could adapt to species of these three native genera.

The aphid is already attacking *Austrocedrus chilensis*, a conifer native to Chile and Argentina, classified as vulnerable. The pest is present throughout the tree's entire range, reflecting an aggressive invasion. Recent surveys show that tree mortality reaches 30% in some areas. Two other potential hosts of the aphid are native conifers *Fitzroya cupressoides* (a national emblem) and *Pilgerodendron uviferum* (the most southerly conifer in the world). The potential area of attack in Chile is over 1.2 million hectares, corresponding to the total forest surface in which the species *Fitzroya cupressoides*, *Austrocedrus chilensis* and *Pilgerodendron uviferum* are present. Because of the aphid's adaptation to Chilean conditions, and the large area involved, scientists are currently considering biological control as possible long-term solution to the problem, looking at *Pauesia* sp. (*Hymenoptera: Braconidae*) as potential control agent as it has been successfully used in control programmes in several African countries.

Source: Dr Agustín Iriarte, Chile, Email: [agustin.iriarte@sag.gob.cl](mailto:agustin.iriarte@sag.gob.cl)



## MALAWI

# Biocontrol coming at a cost



A new breed of hippo grass and papyrus, more aggressive than traditional vegetation, has established in **Malawi**. These new plants flow in dense mats down the **Shire River**, and can be found in bunches as far as 100 miles upstream from the Nkula hydro-electric station. Blocking the river flow needed to feed the power station, these weeds are the cause of regular power cuts, ravage the economy and cost the country more than UK £500 000 per day.

Cranes and trucks are used daily to remove tonnes of the weed, but still the battle is not being won. More expensive machinery is on the way. According to the energy ministry, disruptions of hydro-electric power, which account for most of Malawi's 355MW, cost the country a third of its GDP per year.

The irony lies in the link with Africa's worst invader, the water hyacinth. Like elsewhere across the continent, the water hyacinth was most likely introduced to Malawi a century ago by European settlers. In an effort to control the rapid spread of water hyacinth in Malawi's freshwater systems, which during the mid-nineties severely threatened Lake Malawi itself, two beetles from **Brazil** – native home of the water hyacinth – were introduced: *Neochetina aerechornae* and *Neochetina bruchi*. These 500 000 introduced weevils proved highly effective as biocontrol agents, but unexpectedly they also created a nutrient-rich environment for hippo grass and papyrus.

This secondary growth emerged just as authorities thought they were winning the battle.

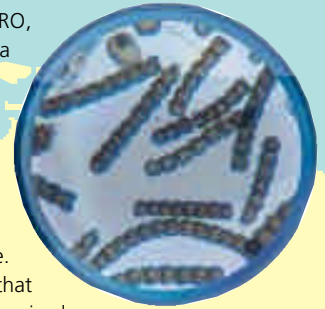
Feeding on the decaying leaves and branches of dying water hyacinth, the new weeds are spreading rapidly and aggressively across the country's waterways, forcing authorities to combine biological, chemical and mechanical means to control the hyacinth's "revenge". This costly process is regarded as a long-term control programme, with some officials seeing no end to it.

Source: The Guardian, 24 May 2004 or [www.guardian.co.uk](http://www.guardian.co.uk)

## AUSTRALIA

# Aquatic pest innovation

Marine scientists at CSIRO, **Australia** successfully tested a new technique to detect aquatic pests in ships' ballast water. In simple terms, the technique uses a DNA probe to sequentially amplify the target specific "DNA signature or fingerprint" to identify the presence of target species in a ballast water sample. Sequential amplification is used so that target species can be isolated from a mixed sample of many species' DNA.



This new technique is cost-effective – it makes current costly screening techniques unnecessary – as well as innovative – it enables unique identification of target species at larval and juvenile stages, unlike conventional microscopic techniques. Species-specific probes have been developed for three high-priority species in Australia, namely:

- The northern Pacific sea star (*Asterias amurensis*)
- The Pacific oyster (*Crassostrea gigas*)
- The toxic dinoflagellate (*Gymnodinium catenatum*)

The CSIRO research team was led by Dr Jawahar Patil and included Dr Nic Bax, Mr Bruce Deagle and Dr Rasanthi Gunasekera. Development of the probes was undertaken in partnership with shipping and port industries and the Australian Quarantine and Inspection Service, and funded by the Commonwealth Government's Natural Heritage Trust, the Victorian Government and CSIRO.

The research team and the shipping industry are excited about this world-first technique and its possible worldwide application as well as the development of other probes for identification of many more species. "We hope that one day, we will be able to take a ballast water sample and test it simultaneously for the 12 listed marine pests in Australia and the 34 species identified as being the next most likely species to invade from overseas" says Dr Patil. "As it doesn't take any more time to test for many species than it does for one species, the technique will become more and more useful as more probes are developed."

Ballast water samples are currently taken back to the laboratory to analyze, but the CSIRO team is looking at ways to automate the process so that ballast water could be monitored onboard ship. "As the power of this technique develops we will be able to recommend where to emphasise research, technological and management efforts to provide the most effective protection against new species arriving in Australia, and the spread of species already here" said Dr Bax.

The technique may have worldwide application, especially in the light of the renewed global attention given to marine invasive issues through the new International Convention on Ballast Water. "We have published full details of the techniques we have used to date in developing the probes so that other researchers can develop similar probes for their species of interest using a common probe format that will one day enable individual researchers to use probes from many sources," said Dr Bax.

Source: CSIRO at [www.marine.csiro.au](http://www.marine.csiro.au) with inputs from Dr Nic Bax. See also p10-13 of this newsletter for more on the Convention.

## CALIFORNIA

### Sudden oak death scare

**C**alifornian plant pathologists have been scrambling to halt the spread of the sudden oak death (SOD) pathogen, *Phytophthora ramorum*, which was found at a nationwide nursery supplier in March this year. Upon discovery, sales of all plants that could harbour this pathogen were immediately stopped, but fears are that potentially infected material are have already been shipped to 783 garden centers in 39 states over the last year.

This pathogen has caused devastation in Californian forests, killing off tens of thousands of different oaks, while also infecting azaleas, rhododendrons, maples, and many other plant species. The latest discovery is not the first of its kind in nurseries, the pathogen having previously been found in nurseries in **San Francisco** during in 2001 and last year also in **Oregon, Washington State** and **British Columbia**.

This recent discovery was made at a big high-volume national supplier owned by Monrovia Nursery during an ongoing survey of 80 Californian nurseries, with scientists fearing a potential nationwide introduction. Just days later, a **San Diego** nursery was confirmed infected with 11 more testing positive on initial screening. The Florida Department of Agriculture and Consumer Services also verified the presence of the SOD disease in three Florida nurseries on plants imported from Monrovia Growers in California.

Scientists with the USDA speedily compiled lists of all nurseries supplied by Monrovia over the last year, and are presently following up on each of these cases, while they are also beginning to survey oak-dense areas in 23 south-eastern states for *P. ramorum* in an effort to prevent a potential national disaster.

Sources: Science, Vol. 303, issue 5666, 26 March 2004 & [www.doacs.state.fl.us](http://www.doacs.state.fl.us)

## PALAU

### Drastic action in tropical paradise

**E**radication teams in the Pacific island of **Palau** have been using the chemical rotenone to kill off over 30 000 of the world's most widely farmed fish, tilapia in a drastic effort to protect its native species and rich biodiversity. This is part of a national eradication effort to exterminate the fish, currently confined to Palau's freshwater systems.

The fact that this unwelcome intruder from the **Middle East** and **Nile region** in **Africa** is currently confined to only four inland ponds on the island, counts in Palau's favour. But even so, should the island succeed in completely eradicating tilapia, it would be a first for the Pacific. **Nauru**, for example, has battled with this species since 1978.

Tilapia, although a successful aquaculture species and excellent source of protein, is unfortunately also a vicious invasive. It easily out-competes native species as it feeds on anything and reproduces very quickly. Its track record – massive native fish mortalities in **Lake Victoria** and disastrous environmental and socio-economic impacts elsewhere, along with its special adaptability to salt water conditions – is ample justification in the eyes of Palauan officials in charge of the current eradication plan.

Suspecting that this fish may have been introduced with shipments of live milkfish from **Bali**, sold as bait to foreign fishing vessels, Palau has recently banned all milkfish imports until these shipments are guaranteed to be tilapia-free.

Sources: The Taipei Times, 19 April 2004, and TerraDaily at [www.terradaily.com](http://www.terradaily.com).

## SOUTH AFRICA

### Controlling the tahr on Table Mountain

**P**ublic awareness on invasive alien species recently rose to a new high in **South Africa** in response to a renewed eradication programme for **Table Mountain's invasive Himalayan tahr**. The debate ended up in court when a local environmental group, "Friends of the Tahr" opposed the shooting of the alien buck from South Africa's most recognized landmark. The High Court dismissed this opposition, giving the green light for the park's manager Brett Myrdal to continue with the shooting of the estimated 100 tahrs. Myrdal explained that the park took a decision in 1999 to remove the invasive buck in order to allow for the reintroduction of indigenous klipspringers, grey rhebok and grey duiker, currently all but extinct due to hunting and environmental neglect.



In the 1930s, a few Himalayan tahr, *Hemitragus jemlahicus*, escaped from a zoo on the slopes of Table Mountain, in the heart of Cape Town. With no large predators remaining on this urban island, their numbers grew rapidly, peaking at about 600 in the mid-1970s. This led to an original culling programme in 1973. This programme was discontinued amidst continued opposition from animal rights groups before the tahr was completely eradicated. Today their foraging and trampling continues to threaten the mountain's rich endemic plant life and increase erosion. Because live capture of the animals is near impossible, shooting them still remains the most feasible option. The park's management hopes to finish the complete removal of the tahr within a year, assuring the public that humane methods, including the use of marksmen to shoot the animals as approved by the independent Animal Use and Care Committee, would be used.

Sources: BuaNews (Pretoria), May 17, 2004 and <http://allafrica.com>

## TRINIDAD

# Weapon discovered for India's fight against Mikania invasion

A project to investigate an Integrated Pest Management (IPM) approach to Mikania, led to the identification of an isolate of the rust *Puccinia spegazzinii* as the most suitable biocontrol agent for introduction to **India**. This project is funded by the British Department for International Development (DFID),

Selected from a broad range of fungal pathogens occurring on Mikania in its neotropical range, this particular Puccinia strain from **Trinidad** proved virulent against a wide range of the Mikania populations in India, including all those from the Western Ghats.

The Trinidad rust proved to be totally specific to Mikania, after being tested against 55 non-target species, including crops. Additionally it is highly damaging to the invader, causing leaf, petiole and stem cankering and death of the entire plant. It looks as if the introduction of this rust to India will be highly effective as a biocontrol agent against Mikania, significantly reducing the growth and spread of this weed.

Reduced time spent weeding will increase agricultural productivity, which may ultimately increase productivity and alleviate poverty of subsistence farmers. Control of Mikania will also benefit biodiversity in the regions where the weed is currently having a serious impact. The Trinidad rust is still under quarantine in **New Delhi** for final assessment and screening, with plans in place to release it this year. This project is being carried out by CABI Bioscience UK along with the Indian Kerala Forest Research Institute, Directorate of Biological Control, and Assam Agricultural University.

A similar project for control of Mikania in **China** where it is also a serious invader, has recently been undertaken with funds from the Darwin Initiative.

Source: New Agriculturist at [www.new-agri.co.uk](http://www.new-agri.co.uk)

## SEYCHELLES

# Benchmark Study on Invasive Marine Species

Responding to growing concerns of introductions of marine IAS into ports around the globe, due mainly to increased shipping, IUCN scientists have embarked on a study to determine the impact of invasive species on the **Seychelles** coast. The IUCN team will run this project for the next two years, in close partnership with local scientists from the SCMRT-MPA and the Ministry of Environment and Natural Resources, as well as with those from the Global Coral Reef Monitoring Network and the Coral Reef Degradation in the Indian Ocean (Cordio).

IUCN has identified Seychelles as a pilot site for this programme, partly because of its proven successes in dealing with land-based invasive species. The archipelago's coral reefs also drew researchers' attention, as one phase of the project will study the effect of invasive marine species on both pristine and disturbed reef environments.

Source: IUCN at [www.iucn.org](http://www.iucn.org).

## CHINA

# Beijing under attack

**B**eijing forestry officials fear a serious disaster in the city and surrounding areas if two new invasive plant and crop pests are not effectively controlled. Although not discovered in the city itself to date, preparations are underway to keep the **American white moth and the red turpentine beetle** out of the capital.



The American white moth is a vigorous reproducer and feeder – a family of larva can devour the leaves of a healthy tree in just a few days – and has already been found in the **Hebei Province** bordering on the city, and in parts of the **Tianjin Municipality**.

Another threat to the city lies in the red turpentine beetle, responsible for the killing of millions of Chinese pines in the **Tiahang Mountain** region, not far from the capital. These insects kill by eating the bark from the lower part of the tree, leading to its inevitable destruction.

In a city aware of the dangers posed by new invasions, additional preventative measures are now being activated to keep these two species out. Beijing has strict prevention and control measures in place in the capital, including bi-annual inspections in May and October and pesticide spraying by nearly 200 planes in places where aliens are likely to become established.

According to the China Daily, a proposal recently presented to the Chinese People's Political Consultative Conference, indicates that invasive species cause annual losses of more than US\$6, 9 billion to China's agriculture and forestry sectors.

Source: China Daily, 29 March 2004

## AUSTRALIA

# Forking out for Control in Queensland

**I**nvasive pests cost the state of Queensland, Australia more than **\$60 million per year**, Dr Anthony Pressland of the Queensland Department of Natural Resources recently told a Senate Inquiry into invasive species.

Describing Queensland's climate as a "home-away-from-home" for invading weeds and feral animals, he said that more than 60 alien species of vertebrates and over 1220 plants have "naturalised" in this state. In the last decade alone, a number of new incursions have been discovered, including several weeds, the papaya fruit fly, fire ants and marine pests such as the red-eared slider turtle.

Queensland is constantly under threat from both new invasions and spreading established species. Feral pigs for instance are estimated to have affected \$12 million worth of primary production, while five weeds alone cost the state over \$50 million a year in lost production and control costs.

As high as these control costs are, the benefits are still far greater, Dr Pressland said. He noted that a recent economic assessment showed that each dollar spent on pest management in Queensland could deliver up to \$6.40 in benefit – a return of up to 540% percent!

Source: The Australian, April 14, 2004



# People Against IAS

This section of the GISP News is dedicated to those remarkable human beings across the world who make a difference in the fight against IAS. These “champions” demonstrate outstanding commitment, drive and energy in pushing back the boundaries of scientific and technical innovation in their dedication towards minimising the impacts of IAS.

## Silvia Ziller – Breaking New Ground in Brazil

After years dedicated to raising the IAS profile among university professors, scientists, government leaders and donors alike, Silvia Ziller is known today across Brazil and further afield for her remarkable dedication and achievements in the IAS field.

As young consultant doing forest surveys in the south of Brazil some years ago, Silvia could never understand why nobody seemed to take note of the increasing amount of pine trees gradually infiltrating the natural grassland ecosystem. It did not take her long to realise that virtually nothing was being done to address the growing danger posed by IAS in her home country. After completing a thesis on invading pines, Silvia met John Randall (now Executive Director of TNC’s Invasive Species Initiative) who introduced her to IAS efforts in Australia, New Zealand and the United States – and soon Silvia became engrossed in a whole new world of IAS information, leading to her PhD in December 2000.



### How best to put theory to practice?

The next challenge facing Silvia was to find Brazilian scientists and funders interested in biological invasions. After a year of looking for support, Silvia secured funding from Ashoka Social Entrepreneurs (an international organisation dedicated to supporting innovation), allowing her to, for the first time, dedicate her time solely to IAS management. With this support, Silvia became founding President of the Horus Institute for Environmental Conservation and Development

in 2002. This organisation provided institutional background to a theme of work no other organisation in Brazil was investing in at the time. The work done by Silvia and the Horus-team, soon led to a national IAS survey under the Brazilian Environment Ministry and TNC. Today the activities

of the Horus Institute include a broad spectrum of IAS projects, ranging from awareness raising initiatives, policy development, training, research, management as well as technical assistance to major forest companies.

***“With IDEAAS (Institute for the Development of Alternative Energy and Sustainability), an NGO based in Porto Alegre, Brazil, whose founder is also an Ashoka fellow, Fábio Rosa, we developed alternative models to the use of alien species in forestry by working with native species. We found that the value of timber is 5-6 times higher than the value of pines or eucalyptus, and have installed forest plantations to prove the viability of using native biodiversity. Our plantations are now one year old and we are concluding the economic feasibility assessment, with income projections for 25 years and onwards. We have also established a Forum on IAS and sustainable development in the state of Rio Grande do Sul to serve as a model for a national council in the future.”***

Silvia is serving on the GISP Board and the GISIN Interim Steering Committee (see front page) and has recently become a member of the IUCN –Invasive Species Specialist Group(ISSG).

## Sandy Lloyd – Building the IAS Network

*“When completing my degree in biology, I thought I’d work with native plants, but I ended up working with invasive plants.”*



Having worked for the Department of Agriculture in Western Australia (WA) for 18 years as weed scientist, Sandy has a broad interest in invasive species and related issues such as quarantine and bio-security. Totally dedicated to IAS issues, she is also a partic-

ipant in the Weeds CRC ([www.weeds.crc.org.au](http://www.weeds.crc.org.au)).

During her time with the agriculture department, Sandy has seen a shift in attitude: ***“When I first started here quarantine was very much focused on agriculture protection, but there is now a much more holistic approach towards protecting the environment. The other thing that has changed is the staff profile – when I started here in 1986 it was very much a male dominated workplace, with a strong emphasis on degrees in agricultural science”*** she said ***“but there are now a lot more women, people from non-English speaking backgrounds and a much wider range of science degrees accepted.”***

Sandy is President of the Weeds Society of Western Australia, and is in herself an invaluable source of information on latest IAS invasions, innovation, events, news and contacts. Her reputation and ability to network precedes her internationally, where she is well known and respected among key global IAS role players.

Totally dedicated, Sandy constantly monitors gardening magazines, real estate pages of newspapers, thousands of websites and other information sources, looking for any banned species, and report these regularly encountered breaches to the appropriate authorities. Her self-tasked campaign involves tireless site visits with inspectors, letters to magazine editors and public education wherever she goes.

As if not already doing enough, Sandy’s latest special interest is in the Internet as a pathway for spreading new invasions, especially plants, across the globe, and she is currently collaborating with US colleagues, GISP and others on this issue.

## A New Chair for GISP

**Dr Mark Lonsdale**, Assistant Chief, Entomology at CSIRO, in Canberra, Australia was elected new Chairperson of the GISP Board. He took over from outgoing Chair, Dr Guy Preston at the annual GISP Board meeting in January this year.

Mark’s areas of expertise are in:

- Biological invasions
- Environmental risk assessment
- Biological control of weeds
- Ecological implications of GMOs
- Plant population ecology.

In 1992, he was awarded a PhD for his work in invasive plants, after which he lectured in biology in Nigeria before working at Darwin, Australia on the ecology of tropical weeds for ten years. During this time, Mark carried out research into:

- Impacts of invasive weeds on biodiversity, focusing on *Mimosa pigra*
- Inter-sectoral conflict in plant introductions
- Impacts of weed biological control on plant populations
- Rates of spread of exotic weeds
- Impacts of fire on tropical savannas
- Seed bank ecology, and
- Self-thinning

Mark then moved on to become officer in charge of Entomology’s biological control laboratory and was soon appointed Leader of the Weeds Program in Entomology where he was strategic in securing the bid for the Cooperative Research Centre from Australian Weed Management, in 1999. Mark also assisted with the development of CSIRO’s new GMO program of which he became coordinator in July 2000.

Before beginning his current role as Assistant Chief in 2002, Mark was also a Strategy Director: Environment. He currently serves on various committees and boards and is world-renowned for a comprehensive series of technical and scientific IAS publications. For more information on Mark, and his role as GISP Chairperson, visit [www.gisp.org](http://www.gisp.org) or [www.ento.csiro.au](http://www.ento.csiro.au), or contact Tracey Cootes, Mark’s personal assistant at [Tracey.Cootes@csiro.au](mailto:Tracey.Cootes@csiro.au).



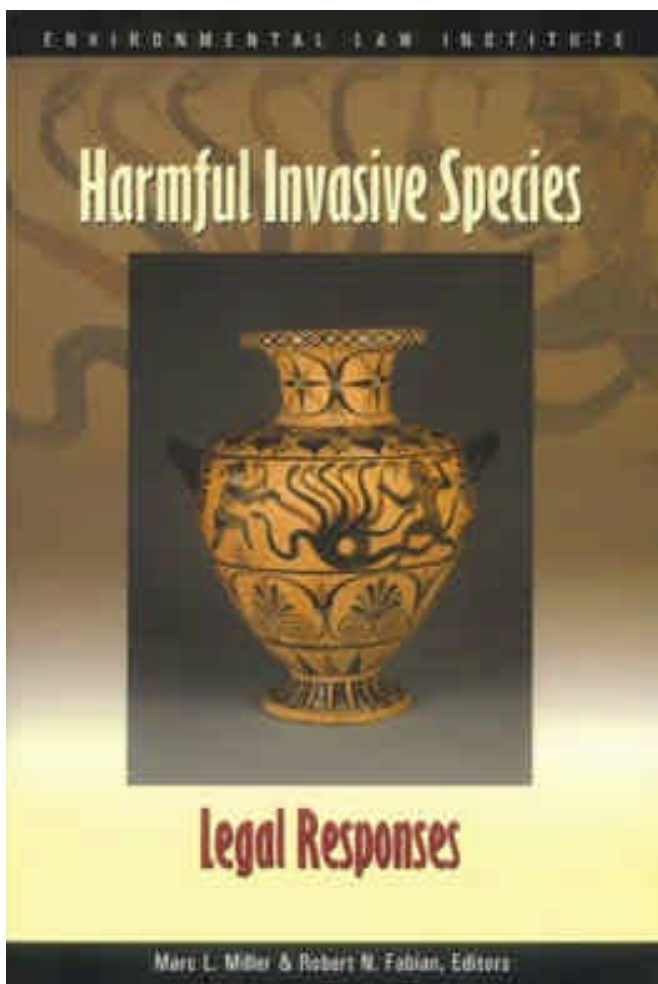
# Invasives in Print

## recent IAS publications

### Harmful Invasive Species: Legal Responses

The book "Harmful Invasive Species: Legal Responses" had its origins in the IUCN's Environmental Law Centre in 1999 as a series of short essays and was finally published by the Environmental Law Institute in January this year. In addition to editors Marc Miller and Robert Fabian, there are many well-respected contributors to the nine chapters covered in this publication, which primarily describes IAS laws and policies in six different countries: **New Zealand, Germany, South Africa, Argentina, Poland and the United States.** Apart from the direct contributions, many of the top minds in the current IAS international arena have contributed to this timely publication.

The book uses the laws and policies of these six countries as analytical points to respond to the complex value questions at the heart of IAS issues. It also addresses three international cross-cutting dimensions of IAS policy, namely quarantine systems, trade issues and the special concerns raised by genetically modified organisms. The Environmental Law Institute describes the publication as a "must-read" for concerned scientists, lawyers, policy-makers and citizens all over the world. For more information, or to order your copy, visit [www.elistore.org](http://www.elistore.org).



### Western Indian Island States need regional approach



The proceedings of the "Regional Workshop on Invasive Alien Species and Terrestrial Ecosystem Rehabilitation in Western Indian Ocean Island States" of the Indian Ocean Commission, held by the IUCN Indian Ocean Plant Specialists Group in the Seychelles in October 2003, are now available from the ISSG website at [www.issg.org](http://www.issg.org) and with permission, from

the GISP website at [www.gisp.org](http://www.gisp.org).

This workshop demonstrated that among the island states, there are many innovative and wide-ranging IAS activities undertaken in the region. There is however a huge need to share information, experience and capacity within the region, and a need to develop and implement a regional programme for IAS management emerged as a priority from the workshop. The workshop had strong representation from four island states, **Mauritius, the Comores, La Reunion and Seychelles** as well as a number of international delegates from further afield.

### Australia Calculates: Weeds cost \$4 billion each year!



The CRC for Australian Weed Management Technical Series no. 8, entitled "The Economic Impact of Weeds in Australia" was published in March this year. According to this study, weeds cost Australian agriculture \$4 billion per annum, 19 % of which is borne by consumers. This estimate, although doubling the 1981/82 \$2 billion estimate by Combellack, is conservative. It does not

include the cost to biodiversity and the natural environment, nor does it include the value of voluntary weed control projects or human health costs related to asthma and allergies caused by weed pollen.



The report indicates that the industry worst affected is cattle production with that of wheat a close second. Although government agencies spend more than \$80 million annually on weed control, and volunteer control projects are increasingly and significantly contributing to the national effort, it is clear that Australia is far from winning the battle. This publication highlights the fact that some of the worst invaders were, as in so many cases, deliberately introduced by people. The pond apple, introduced as rootstock for custard apple trees and hymenachne, imported as pasture plant for wet areas, are both examples of this.

Professor Jack Sinden of the University of New England is the lead author of this publication which is available from the CRC Weed Management website at [www.weeds.crc.org.au](http://www.weeds.crc.org.au).

### The Silent Invasion – a special focus on invasive alien species and small island developing states

A series of three top quality and highly informative discussion drafts were prepared by a multi-disciplinary team for COP7 of the CBD held in Kuala Lumpur, during February this year. The team consisting of members of **The Nature Conservancy, Defenders of Wildlife and the Center for International Environmental Law** combined forces to put together these discussion drafts. The three documents form a series zooming in on the IAS issue as it manifests itself on small island developing states (SIDS) entitled: **The Silent Invasion: Small Island Developing States and Invasive Alien Species**, with one document providing an overview, the second focusing on pathways and control measures and the third on capacity building for small island states.

The Silent Invasion series can be obtained directly from the three organisations and is also, with permission, available from the GISP website.

For more information, contact Stas Burgiel from Defenders of Wildlife, Email: [sburgiel@defenders.org](mailto:sburgiel@defenders.org),

Anne Perrault at the Center for International Environmental Law, Email: [aperrault@ciel.org](mailto:aperrault@ciel.org), or

Carnet Williams from The Nature Conservancy of Hawaii, Email: [carnet\\_williams@tnc.org](mailto:carnet_williams@tnc.org).

### The European Union: LIFE addressing alien species



Established in 1992, LIFE is the European Union's Financial Instrument for the Environment through which a variety of projects are implemented across the EU. The report **"Alien Species and Nature Conservation in the EU – The Role of the LIFE Program"** was published earlier this year.

It reports that, over a period of 10 years, up to 2002, more than 100 projects out of a total of 715, financed through the LIFE Nature program, included activities directly related to invasive species work. The total implementation budget for these projects amounted to more than 27 million Euros, indicating that IAS are considered to be of major concern, even if there may still be a general lack of public awareness around the negative and costly impacts posed by IAS.

The publication consists of four sections including an overview of the socio-economic and environmental impacts of IAS within the EU, followed by an overview of current international instruments and EU policy and legislation, an IAS management section and some conclusions on the topic, with case studies and project examples throughout the document. This publication can be downloaded from the EU website at <http://europa.eu.int>, or obtained from the European Commission.



## IAS events highlights:

### 13th International Conference on Aquatic Invasive Species

This annual event takes place this year in September in Ireland. Hosted by the Sligo Institute of Technology, it is widely considered the most comprehensive international forum for:

- the review of accumulated scientific knowledge on the impacts of aquatic invasive species
- presentation of the latest field research and related data
- introduction of new technologies and advancements in control and mitigation
- discussion on policy, and
- approaches to effective public education and outreach initiatives to prevent new introductions.

In light of the newly ratified Ballast Water Convention and

growing global interest in aquatic IAS issues, this year's Conference is expected to be well attended with a lot of innovative presentations and events already confirmed. **Go to [www.aquatic-invasive-species-conference.org](http://www.aquatic-invasive-species-conference.org) or contact conference administrator, Elizabeth Muckle-Jeffs at [profedge@renc.igs.net](mailto:profedge@renc.igs.net) for more information.**



### "Small Islands, Big Stakes"

This is the theme of the upcoming **"International Meeting for the 10-Year**

**Review of the Barbados Programme of Action for the Sustainable Development of the Small Island Developing States"** due to take place in Mauritius.

**"Small Islands, Big Stakes"** will focus on the implications and recommendations flowing from a recently completed

## Overview of upcoming IAS events

DATE	EVENT	WHERE	CONTACT DETAILS
2-4 June	Facilitating Safer U.S. Caribbean Environment: Invasive Species Issues	Port of Spain, Trinidad	Bruce Lauckner <a href="mailto:technical@cardi.org">technical@cardi.org</a> or 868-645-1205/7 (Trinidad)
8-11 June	Beijing Symposium on Bio-invasions	Beijing, China	<a href="http://bisobi.sino-eco.org/overview.html">http://bisobi.sino-eco.org/overview.html</a> In China, Dr Jianghui at <a href="mailto:Huangjhhuang@ns.ibcas.ac.cn">Huangjhhuang@ns.ibcas.ac.cn</a> Or in the USA, Dr Shili Miao at <a href="mailto:smiao@sino-eco.org">smiao@sino-eco.org</a>
20-24 June	European Global Taxonomy Initiative (GTI) Workshop (CBD)	Isle of Vilm, Germany	<a href="http://www.biodiv.org/default.aspx">http://www.biodiv.org/default.aspx</a>
20-24 June	4th International Weed Science Congress	Durban, South Africa	<a href="http://www.iwsc2004.org.za/">http://www.iwsc2004.org.za/</a> Chris Mulder, <a href="mailto:mindmelt@icon.co.za">mindmelt@icon.co.za</a> Charles Reinhardt, <a href="mailto:creinhardt@bioagric.up.ac.za">creinhardt@bioagric.up.ac.za</a>
1-3 July	Medicine at the Border: The History, Culture and Politics of Global Health	University of Sydney, Australia	Alison Bashford <a href="http://www.arts.usyd.edu.au/departs/history/conferences/borders.shtml">www.arts.usyd.edu.au/departs/history/conferences/borders.shtml</a>
11-16 July	2004 XV International AIDS Conference	Bangkok, Thailand	Noam Perski <a href="http://www.ias.se/aids2004">www.ias.se/aids2004</a>
12-16 July	Association of SE Asian Nations (ASEAN) Workshop to Address IAS	Malaysia	The Workshop Steering Committee through Dr Jeff Fisher, tel: (202) 647-0199 of the Invasive Species Desk at the US Department of State
18-23 July	47th Annual Symposium International Association of Vegetation: Landscape Change and Ecosystem Disturbance: Islands and Continents	Kailua-Kona, Hawaii	<a href="http://conference.uhh.hawaii.edu/iavs2004.info.html">http://conference.uhh.hawaii.edu/iavs2004.info.html</a>

ten-year review of the Barbados Programme of Action (BPoA). This Programme, adopted by the United Nations in 1994, sets forth specific actions and measures at national, regional and international levels in support of the sustainable development of Small Island Developing States (SIDS).

The Mauritius meeting follows upon a series of regional and international preparatory meetings including those held for the Pacific SIDS, Atlantic, Indian Ocean, Mediterranean, and the South China Sea (AIMS) SIDS, and the Caribbean SIDS.

In an UN report, dated 11 March, entitled "Review of progress in the implementation of the Programme of Action for the Sustainable Development of Small Island Developing States" Secretary-General Kofi Annan noted that progress in the implementation of the BPoA has been mixed and that SIDS still face major challenges to their sustainable development.

The report also highlights new and emerging issues which

are impacting on sustainable development efforts by SIDS. These include:

- The need for effective poverty eradication strategies and pursuit of people-centered development
- Coping with the effects and costs of international security threats on travel and tourism
- The development of cultural industries, and
- The growing problem of HIV/AIDS.

Under-Secretary General of the UN and High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States, Mr Anwarul Chowdhury, has been elected as Secretary-General of the Mauritius meeting. He has called on donor countries to provide more support in order to meet the priority needs identified by SIDS.

DATE	EVENT	WHERE	CONTACT DETAILS
19-23 July	CBD Ad Hoc Technical Expert Group on Island Biodiversity	Canary Islands, Spain	<a href="http://www.biodiv.org">http://www.biodiv.org</a>
23-27 Aug	The XIXth International Congress of Zoology	Beijing, China	<a href="http://www.issg.org/events.html">www.issg.org/events.html</a>
26-29 Aug	International Conference on Assessment and Control of Biological Invasion Risks	Yokohama, Japan	<a href="http://bio-eco.eis.ynu.ac.jp/jpn/top/topic_sheet/symposium20040827/eng.html">http://bio-eco.eis.ynu.ac.jp/jpn/top/topic_sheet/symposium20040827/eng.html</a>
30 Aug - 9 Sept	16th Technical Consultation among Regional Plant Protection organisations	Nairobi, Kenya	<a href="http://www.ippc.int/IPP/En/default.htm">http://www.ippc.int/IPP/En/default.htm</a>
31 Aug - 2 Sept	XII International Conference on Weed Biology	Dijon, France	<a href="http://www.dijon.inra.fr/malherbo/AccueilF1.htm">http://www.dijon.inra.fr/malherbo/AccueilF1.htm</a>
5-9 Sept	Coastal Zone Asia Pacific Conference	Brisbane, Australia	<a href="http://www.sprep.org.ws/event/2003_3rd.htm">http://www.sprep.org.ws/event/2003_3rd.htm</a>
6-9 Sept	14th Australian Weeds Conference	Wagga Wagga, Australia	<a href="http://www.csu.edu.au/special/weedsconference">http://www.csu.edu.au/special/weedsconference</a>
8-10 Sept	Marine Environmental Conference: Ballast Water and Waste Water Treatment aboard Ships and in Ports	Bremen, Germany	<a href="http://www.euleandpartners.com">www.euleandpartners.com</a>
13-24 Sept	Epidemiology of Infectious Diseases – Mathematical Models, Intervention Strategies & Risk Assessment	London, UK	Ulrika Wernmark <a href="mailto:cpd@imperial.ac.uk">cpd@imperial.ac.uk</a>
19-23 Sept	13th International Conference of Aquatic Invasive Species	Ennis, County Claire, Ireland	<a href="http://www.aquatic-invasive-species-conference.org">http://www.aquatic-invasive-species-conference.org</a>
30 Sept to 1 Oct	3rd International Conference on Biological Invasions NEOBIOA	University of Bern, Switzerland	<a href="http://www.neobiota.unibe.ch">www.neobiota.unibe.ch</a>
4-7 Oct	5th Asia Pacific Travel Health Conference	Kuala Lumpur, Malaysia	Congress Secretariat of 5th APTHC <a href="mailto:5apthc@meditech.com.my">5apthc@meditech.com.my</a>



DATE	EVENT	WHERE	CONTACT DETAILS
14-16 Oct	Invasive Species Symposium	Sacramento, California	www.tws-west.org
18-22 Oct	Second National Rodent Summit	Wildlife Services National Wildlife Research Center, Fort Collins, Colorado, USA	Earl Wm.Campbell,(808) 792– 9400
22-23 Oct	Eighth International Wildlife Law Conference	New Orleans, Louisiana	www.internationalwildlifelaw.org
25-28 Oct	Sanitary and Phytosanitary (SPS) Committee Meeting under the International Plant Protection Convention	Geneva,Switzerland	www.ippc.int/IPP/En/default.htm
8-10 Nov	Third International Conference on Invasive Spartina	San Francisco, California	www.spartina.org
8-12 Nov	Standards Committee Working Group (IPPC)	Rome,Italy	http://www.ippc.int/IPP/En/default.htm
9-10 Nov	Second Asian Regional Workshop of Global Taxonomy Initiative (CBD)	Wellington,New Zealand	http://www.biodiv.org/default.aspx
15-19 Nov	XI International Conference on Harmful Algae	Cape Town,South Africa	http://www.botany.uwc.ac.za/pssa/hab2004
17-30 Nov	3rd IUCN World Conservation Congress	Bangkok,Thailand	www.iucn.org
14-18 Feb, 2005	Tenth meeting of Subsidiary Body of Scientific, Technical and Technological Advice (CBD SBSTTA-10)	Thailand	http://www.biodiv.org/default.aspx
April 2005	CBD Ad Hoc Technical Expert Group on Invasive Alien Species (gaps and inconsistencies)	Auckland,New Zealand	http://www.biodiv.org/default.aspx
11-15 July, 2005	CBD Ad Hoc Technical Expert Group meeting on Marine and Coastal Biodiversity	Montreal,Canada	http://www.biodiv.org/default.aspx
Autumn of 2005	Ecology and Management of Alien Plant Invasions (EMAPI) 8th biennial meeting	Poland	John Brock (480)727-1240 or john.brock@asu.edu
5-9 Dec, 2005	Eleventh meeting of Subsidiary Body of Scientific, Technical and Technological Advice (CBD SBSTTA-11)	Guatemala	http://www.biodiv.org/default.aspx
17-21 Sept, 2007	9th International Conference on the Ecology and Management of Alien Plant Invasions EMAPi9	Perth,Australia	http://members.iinet.net.au/~weeds or www.congresswest.com.au/emapi9

This list is kindly compiled by Dr Richard Orr, Assistant Director for International Policy and Prevention of the National Invasive Species Council, Washington,DC. You can contact Dr Orr at:1849 C Street,NW, Washington,DC 20240,or Phone (202) 354-1882, Fax (202) 371-1751,or email him at Richard\_orr@ios.doi.gov.

You may request free subscription to the mailing list to which updated IAS events lists are distributed on a monthly basis. You are also invited to provide Dr Orr with any upcoming IAS event information for incorporation in this list.

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