

Capacity Building at the Top of the IAS Agenda



Article 8 (h) of the Convention on Biological Diversity (CBD) commits Contracting Parties to "prevent the introduction of, control or eradicate those alien species which threaten ecosystems, habitats or species". The management of invasive species is, however, for the majority of countries, a relatively new issue and one which, in the face of many other perhaps more obvious priorities, has not received the attention it deserves, as is reflected in the National Reports submitted to the CBD Secretariat.

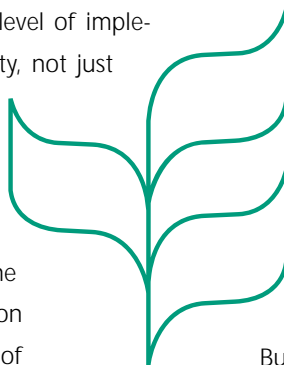
One of the contributing factors to the low level of implementation of this Article, is a lack of capacity, not just the technical expertise, but the institutional and regulatory frameworks required to facilitate it. There are, however, an increasing number of initiatives aimed at addressing the situation. In the context of the CBD, Decision VI/23 of 2002 saw the adoption of Guiding Principles for the implementation of Article 8 (h) while stressing, amongst other

things, the need for the development of national and regional strategies on IAS, and capacity-building.

The Global Invasive Species Programme (GISP) together with its partners and many other organisations are now involved in a number of activities aimed at addressing this lack of capacity. Some of these projects and programmes are outlined below.

The GISP Secretariat funded the development of a generic modular technical training course in association with ISSG.

This course has subsequently been customised for the East African Region, and a pilot delivery took place during the last week in October in collaboration with CABI's African Regional Centre, IUCN EARO, ICIPE and the Kenya Plant Health Inspectorate Service (KEPHIS). In the longer term it is intended that this course be rolled out globally as part of a broader GISP/UNEP/GEF project on "Awareness-Raising and Capacity-Building for IAS Prevention and Management". This latter project will also address institutional and



CBD

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FROM THE DESK OF THE DIRECTOR

Since joining the GISP just over a year ago, it has become increasingly clear to me that even in environmental circles – let alone the broader public - there are many who remain less than convinced about the severity of invasive alien species. For some, the term alien itself is politically offensive; conjuring up notions of xenophobia and the like, and this detracts from the real problem, which is the invasiveness of the species concerned. For others, it is still seen primarily as an environmental issue – the new scare tactic of a group of radical greenies.

These perceptions pose major obstacles for the GISP and other organisations trying to address the problem. The invasive species issue needs to be understood for what it is: NOT just a biodiversity problem, but a cross-sectoral issue which places constraints on economic growth, poverty alleviation and food security. In other words, invasive species are a development issue.

Developing countries are particularly vulnerable to the impacts of invasive species, not only because of their relative lack of capacity to prevent incursions or to manage introduced species, but also because their economies are directly dependent on the natural resource base to a much greater extent than industrialized nations. Those people eking out an existence at subsistence level are particularly threatened by species

causing land degradation, limiting water availability, and reducing crop production. And there are many examples. Grain products, the staple food of millions of people in sub-Saharan Africa, are impacted by a host of pests including the Khapra beetle, the larger grain borer and rats, to name but a few.

To their credit, many developing countries have now recognized this threat and, despite a lack of resources, are attempting to address it. But it is equally important that their trading partners in the developed world, and those that provide them with aid, also acknowledge the potential threat posed by their activities and that they take adequate precautions to prevent their intended assistance from having disastrous consequences.

As Director of GISP, I call on the global community to take heed of this growing threat and to help place it firmly on the agenda, not only of biodiversity conservation, but of all sectors, from agriculture, fisheries and forestry, to trade and transport. Only by “mainstreaming” it into all spheres of human activity are we likely to have any success.

Dr Lynn Jackson

Director: GISP Secretariat

Visit our website at www.gisp.org for daily updates on IAS news, events, jobs and much more...

As the GISP web portal is steadily expanding, with more downloadable documents, fact sheets, up-to-date news items, a user-friendly calendar of IAS events around the globe, and much more, users of the site are also increasing, with more than 45 000 visits counted by mid-October. Taking into consideration that this portal was first activated in January this year, the GISP web team is very excited about the expansion rate and future possibilities for this new IAS interactive information resource.

The latest feature, which greatly enhances the interactivity of the portal, the Global Interactive Map (GIM), was recently activated. This powerful, yet easily accessible and user-friendly

information tool allows the user to search the entire world for IAS and related information. This is done through a GIS-activated map with information sorted into global, regional and country levels, each with its own list of searchable categories. This new tool is intended to integrate with the Global Invasive Species Information Network (GISIN) and is directly linked to the IAS portal on the web portal of the Convention on Biological Diversity (CBD).

Aiming not to duplicate, but rather to enhance and add value to the many existing and emerging online tools, like the myriad of very useful species databases, GISP wants to make the GIM available primarily as a networking tool – a

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regulatory frameworks in 5 pilot countries and regions in the developing world.

Apart from the more general training that is required, there is a need for more specific training, for example, in database development and in species identification. With respect to the latter, GISP has been involved in ongoing discussions with the GTI and BioNET International, with a view to including these elements into the broader project. Another GISP partner, Working for Water, has been working with Rhodes University to develop a training course on biocontrol activities.

On the marine front, GISP is working with the UNEP Regional Seas Programme to customise the training course for delivery to marine and coastal managers through the Regional Seas structures. In addition, since the establishment of the GISP Secretariat in South Africa, GISP has provided support to the IMO/UNDP/GEF Globallast Programme, in particular the South African component thereof, where capacity-building activities have included the piloting of a training course on ballast water management, as well as training in port survey methodologies (see article on page 18 for further information). While the first phase of Globallast will come to an end at the end of 2004, it is anticipated that there will be a second phase which will see an expansion of regional activities, including capacity building.

CABI ARC and the IUCN – as GISP partners – have also been responsible for coordinating the PDF B Phase of a GEF-



funded project entitled "Removing Barriers to Invasive Plant Management in Africa". Barriers which have been identified in the 4 participating countries – Ethiopia, Ghana, Uganda and Zambia - include a relatively weak and fragmented policy environment and general lack of technical capacity. The full project will address these by assisting with the development of national IAS strategies and action plans, reviewing institutional and legal arrangements, and providing training in various aspects of IAS management.

The Ecuador Government/UNDP/GEF project "Control of Invasive Species in the Galapagos Archipelago" also includes capacity building components, as does the SPREP project in the South Pacific. The latter includes training for key border-control activities such as species identification, field detection, quarantine inspections, monitoring and early incursion management.



one-stop information hub which will easily and speedily navigate both the scientific community and the public at large to find the information or organisation they are looking for. With a powerful search engine, users are able to extensively search the entire database and download free information or go directly to the URLs and many databases linked to the GIM.

But this new tool will only be as good as the information it contains. We therefore urge all IAS role-players to send us your IAS information and links so that it can be accessible through the GIM. Please send it directly to our web team at gisp@uwc.ac.za or contact Kobie Brand, GISP Communications Coordinator, at brandt@nbi.ac.za.

A new IAS Centre of Excellence for South Africa

Engela Duvenhage

The bleak statistics regarding the scope of biological invasions, the rates of spread of invasive species, and the extent of their impacts are all too familiar, and all too depressing. The recently launched DST/NRF Centre of Excellence for Invasion Biology (C-I-B) adds a new figure, 28, which is set to change the face of the South African landscape.

This is the number of students that the C-I-B will recruit, and after a few years, turn over, annually for at least a decade. These students will contribute to a skilled workforce that can address the biodiversity impacts of biological invasions in both South Africa and elsewhere. Student training and education at all levels, from undergraduate to PhD, and on to the postdoctoral level and in-service training form a key element of the strategy of the C-I-B, which also addresses four other key performance areas of primary research, networking, knowledge brokerage, and service provision.



Although the C-I-B has its central hub and front door at the University of Stellenbosch, core team members have been drawn from a range of South African institutions. It is also developing new partnerships with a wide range of organisations here and abroad that are concerned with biodiversity and the risks posed to it by biological invasions. Students and associates will be afforded the opportunity of working with one or more of these partners, and will enjoy significant support to do so.

The C-I-B not only seeks to understand the biodiversity consequences of biological invasions, but also to provide the scientific information required to help reduce the impacts of invasive alien species. Core scientific questions include: why some species are more successful invaders than others are; how invasion alters ecosystem structure and functioning, so ultimately altering ecosystem service provision; and how scientific information can be put to work to better inform policies and the practical decisions that managers must make on a daily basis.





“Understanding our diversity, protecting it, and ensuring a sound, sustainable, and mutually beneficial interaction between humans and the ecosystems on which they rely is key to a viable future,” says C-I-B director Prof. Steven Chown. “We aim to provide scientific information to make such a viable future a reality.”

Introduced species do not always have a negative impact, and can have considerable benefits for society whilst posing either no risk or a minimal one. One of the aims of the C-I-B's scientists will be to assist in developing risk management protocols that can be used to screen species which are set to be imported to South Africa. Excluding high-risk species is one of the most significant steps that can be taken to curb the problems presented by invasive species and to reduce their financial burden on society.

C-I-B is one of six, highly-funded, premier Centres of Excellence selected by the South African Department of Science and Technology (DST) and the National Research Foundation (NRF) to ensure scientific capacity-building and world-class research in fields that contribute to the wellbeing of all South Africans.

The C-I-B will be directed and managed by a small team at the University of Stellenbosch which will enjoy guidance from a Board comprising representatives from Stellenbosch University, DST, NRF, three external science reviewers, as well as representatives from the user community, including Prof Paul Skelton (South African Institute for Aquatic Biodiversity), Dr Naomi Mdzeke (Working for Water), Ms Kristal Maze (South African National Biodiversity Institute) and Dr Phoebe Barnard of the Global Invasive Species Programme.

For more information visit, www.sun.ac.za/cib or contact Prof Steven Chown at slchown@sun.ac.za.

IAS training course piloted in East and Southern Africa

The challenges facing countries – especially developing countries – in the fight against invasive species cannot easily be discounted. It is clear that a proactive approach, emphasizing regional collaboration, networking, technical capacity building and prevention measures is the key to giving nations a head start.

With this in mind, a 12-module IAS technical training course, aimed primarily at regulatory officials in the agricultural and environmental protection sectors, was developed on behalf of GISP by the Invasive Species Specialist Group. This course was customized for pilot-testing in East and Southern Africa by CAB International's Africa Regional Centre (CABI-ARC), based in Nairobi. The pilot delivery of the course took place from 25-30 October, 2004, hosted by the Kenyan Plant Health Inspectorate Services, KEPHIS, in Nairobi. CABI-ARC superbly organized the course, which took place with a strong and vibrant team of nearly 30 professionals from Kenya, Uganda, Zambia, Mozambique, Tanzania and Ethiopia.

Participatory learning and sharing of experiences is always the richest form of training. Although some of the participants in this introductory course were quite senior in their institutions, the expertise they brought to bear on the subject and the examples they shared with the group were invaluable. Independent evaluation of the course was expertly handled by Dr Ana Varela of the International Centre for Insect Physiology and Ecology. Participants rated the course highly, but also made some concrete and positive suggestions for improvement. GISP now plans to revise the course based on lessons learned from the East and Southern African experience, and hopes to roll it out in five pilot countries (Chile, Costa Rica, Senegal, Tanzania and Vietnam) from 2006 onwards, as part of a major GEF-supported project on capacity building in developing countries. These countries will act as nodes of expertise and regional capacity-sharing, to take technical training and skills for the fight against IAS into these disparate regions.

GISP is grateful to the World Bank's Bank - Netherlands Partnership Programme (BNPP) for support to customize, deliver and pilot-test this course. Partners around the world are encouraged to contact Dr Lynn Jackson, GISP director, at jackson@nbi.ac.za with information on their capacity building needs related to IAS.

The GISP Partnership Network in Action

A focus on the INVASIVE SPECIES SPECIALIST GROUP (ISSG)

– extracted from an article by ISSG Chair, **Prof Mick Clout**.

What is the ISSG?

The Invasive Species Specialist Group (ISSG), established in 1993, is a network of expert volunteers, organised under the auspices of the Species Survival Commission of IUCN (The World Conservation Union). It currently has around 160 voluntary members from over 40 countries, employs 7 permanent staff and is chaired by Prof Mick Clout at the University of Auckland (UOA), New Zealand.

The mission of ISSG is: “to reduce threats to natural ecosystems and the native species they contain, by increasing awareness of alien invasions and of ways to prevent, control or eradicate them”.

Highlighting two ISSG projects

1. The Global Invasive Species Database –GISD

The Global Invasive Species Database (GISD) provides a broad audience with easy access to authoritative information on IAS. It disseminates globally sourced information, including good practice, case studies, specialist's knowledge and experience. The database has a dual aim: to raise awareness about invasive alien species, their impacts, and the opportunities to fight back; and to be a management tool assisting decision makers, practitioners and communities to address their IAS problems.

The database has undergone a series of enhancements thanks in part to a Memorandum of Cooperation that ISSG and the US National Biological Information Infrastructure (NBII) signed early in 2002. Now the GISD contains profiles of more than 250 species that threaten biodiversity, ranging from micro-organisms to plants and animals. Future plans include ongoing population of the database with more



profiles and development of a CD-ROM version of the database for those who have poor, or no access to the Internet – bridging the digital divide. ISSG is also developing a global master list of invasive species (focusing on biodiversity impacts), which will assist with early warning and prevention. In addition, they are cooperating with the Island Conservation and Ecology Group (Santa Cruz, USA) in the development of an Eradications Register to increase the exchange and sharing of practical expertise. In addition, the GISD will become a key contributor to the new Global Invasive Species Information Network which is under development.

The GISD project has been remarkably successful thanks to the voluntary work of invasive species specialists from all over the world who either create or review the information it contains. [<http://www.issg.org/database>].

2. Cooperative Initiative on IAS on Islands.

The ISSG is hosting and coordinating the Cooperative Initiative on Invasive Alien Species on Islands (CII). The aim of the CII is to facilitate cooperation and build capacity to manage IAS on islands. This initiative followed from calls from Small Island Developing States and was developed (under the umbrella of GISP) as a joint initiative involving the New Zealand Government and the Invasive Species Specialist





The Global Invasive Species Programme

Group (ISSG) / IUCN. It was launched in April 2002 at CBD-COP 6 and activities started in June 2002 with seed funding from the New Zealand Agency for International Development (NZAID) and the Pacific Development and Conservation Trust (New Zealand).

The CII has been involved in a number of successful IAS initiatives to date. In one case, they facilitated the development of the Pacific Ant Prevention Plan (PAPP) and coordinating further efforts, resulting in endorsement by the Pacific Island Countries and Territories in March 2004. Jointly with the Secretariat for the Pacific Community (SPC), the Secretariat for the Pacific Environment Programme (SPREP) and the Pacific Invasive Ant Group, they are now actively seeking to secure funds for a full-time coordinator to be based at SPC.

They have also facilitated a number of feasibility studies, including ones on:

- the eradication of cane toads and rats from Viwa Island (Fiji) to alleviate threats to the endangered Fijian ground frog
- the eradication of a suite of invasive mammals and weeds for biodiversity gains on Cocos Island, Costa Rica, and
- on the control of a suite of invasive mammals on Mont Panié, New Caledonia.

For more information or to get involved, contact ISSG at issg@auckland.ac.nz or www.issg.org



INVASIVES, PRECAUTION, CONSERVATION AND TRADE: CHALLENGES AT THE INTERFACE OF TRADE AND ENVIRONMENT REGIMES

IUCN AND PARTNERS are collaborating on a case study focused on the precautionary approach to conservation risks posed by invasive alien species. In particular, the study assesses and compares the approach of conservation agreements, including the Convention on Biological Diversity, and of major relevant trade-related instruments, including the World Trade Organisation's Sanitary and Phytosanitary Agreement and the International Plant Protection Convention, with respect to the degree of precaution that these agreements appear to allow national authorities to exercise in response to such risks.

This case study is one of a set being carried out by specialists across the world as part of the Precautionary Principle Project (www.pprinciple.net), a joint initiative of IUCN, Fauna & Flora International, TRAFFIC and ResourceAfrica, and involves the IUCN Environmental Law Centre and the IUCN Policy, Biodiversity and International Agreements Unit.

The Precautionary Principle Project is a collaborative international initiative aiming to assess the meaning, impacts and operation of the precautionary principle in natural resource management and biodiversity conservation, and develop best-practice for its effective and equitable implementation.

Preliminary results of this study will be presented by Rosie Cooney at the World Conservation Congress, and will be published with other case studies in book form in mid-2005. Contact: rosie.cooney@fauna-flora.org

The GISP Partnership Network in Action

CAB International launches its new Invasive Alien Species Network

CAB International (CABI) proudly announces the launch of its Invasive Alien Species (IAS) Network!
This follows the first Annual Meeting of the IAS Network held at CABI-UK Centre, 22 - 23 July 2004.



Dr Sarah Simons, Deputy Director, CAB International – Africa Regional Centre is the Global Co-ordinator of CABI's IAS Network, which comprises representatives from both of CABI's Divisions and all of its centres around the world, and aims to address the challenge of invasive alien species by forging Inter-Divisional and Inter-Centre co-operation.

CABI is a global leader in the effort to reduce the spread and impact of invasive alien species, specialising in invasive plants, arthropods, fungi and micro-organisms affecting the environment, agriculture and the economy. With two divisions i.e. CABI Publishing and CABI Bioscience, a global network of centres around the world (Kenya, Pakistan, Malaysia, India, China, UK, Switzerland, Trinidad and the USA) and project scientists working in all five continents, the real challenge to an international organisation such as CABI is how to co-ordinate its activities effectively, both internally and externally.

The goal of the IAS Network is the prevention, eradication and control of invasive alien species and it has four main functions:

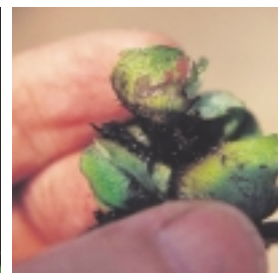
- coordinating CABI's IAS activities between divisions and centres, and with external colleagues and contacts.
- representing CABI at international IAS fora, including participation in regional and international workshops
- IAS project development and implementation, and
- assisting in the management of GISP, of which it is a co-founding organisation.



Pareuchaetes caterpillars



The flea beetle *Agasicles hygrophila*



Cyrtobagous salviniae



Pareuchaetes moths



Priority areas for CABI include

- raising awareness of the threat of IAS
- safe trade through improved quarantine services
- risk assessment
- environmental impact assessment
- impact of invasive species and management practices
- capacity building
- institutions and network for invasive species management
- biological control of invasive species (plants, arthropods)
- support to International standard setting and implementation
- promote sharing and exchange of information
- assist in the preparation of national strategies and plans



CABI's IAS Network – Core Team

1. Sarah Simons (s.simons@cabi.org) IAS Network Co-ordinator based at CABI's Africa Regional Centre
2. Matthew Cock (m.cock@cabi.org), CABI Bioscience representative and Centre Director, CABI-Switzerland
3. Sean Murphy (s.murphy@cabi.org) CABI's UK Centre representative
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5. Moses Kairo (m.kairo@cabi.org), Centre Director, CABI's Caribbean and Latin America Centre representative
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9. Liz Dodsworth (l.dodsworth@cabi.org), CABI Publishing representative
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11. Megan Quinlan (Quinlanmm@aol.com) CABI Associate and Technical representative

Contact the CABI Invasive Alien Species Network through Sarah Simons at s.simons@cabi.org



Invasive Alien Species Prevention Strategies and the International Trade Regime

GUEST ESSAY by Greg Foote, Center for International Environmental Law and Stas Burgiel, Defenders of Wildlife

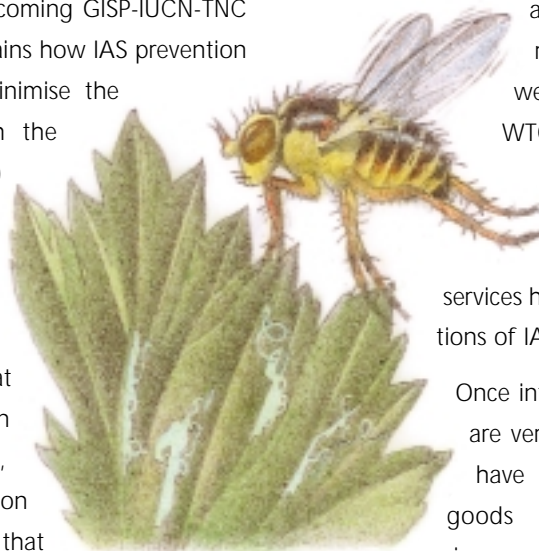


Prevention is, undoubtedly, the most effective way to address threats posed by invasive alien species (IAS). Effective IAS prevention strategies, however, inevitably impose costs and other constraints on international trade. For this reason, IAS prevention could potentially conflict with provisions of the international trade regime. A forthcoming GISP-IUCN-TNC paper notes those pitfalls, and explains how IAS prevention strategies may be designed to minimise the likelihood of actual conflict with the World Trade Organization (WTO) Agreements. Clearly, it would be preferable to amend the WTO Agreement to clarify its relationship with Multilateral Environmental Agreements (MEAs) in a way that facilitates adoption of IAS prevention measures. In the shorter term, however, advocates of IAS prevention strategies have reason to believe that effective measures can be adopted without undue cost and time expenditures in a manner consistent with WTO requirements.

Through trade, transport, travel, and tourism – the “four T’s” – IAS are introduced to new environments. These introductions can be intentional (e.g., horticultural plants, pets, biological control organisms), or unintentional (e.g., by infestation in

or hitchhiking on wood packing material, agricultural products, hull fouling). Invasive species are a form of biological pollution. Unlike other forms of pollution, however, IAS do not become less harmful over time but rather expand – often exponentially – in numbers, density and geographic range. This lesson has been learned the hard way in several cases of highly destructive and costly invasive organisms such as the brown tree snake in Guam, water hyacinth in Africa and elsewhere, and possum in New Zealand.

Absent an effective program to address the IAS problem, the rate of introductions of IAS corresponds directly to the amount of trade. New bilateral and regional free trade agreements, as well as growth in membership of the WTO, have increased the number of links and volume of traffic in global commerce in recent years. This increased movement of goods and services has directly resulted in more introductions of IAS.



Celery leafminer

Once introduced into a new ecosystem, IAS are very likely to become widespread, and have direct, adverse impacts on public goods including human health, the environment, food security and livelihoods. Even wealthy, industrialized countries such as the United States have had relatively limited success in eradicating, containing, or controlling IAS. Success that has occurred using post-introduction methods generally is restricted to IAS that affect agriculture, forestry and transportation. In most countries, less has been done to address IAS that pose broader environmental concerns, although failure to do so



will eventually undermine a country's ability to maintain the ecological foundation that supports many commercially valuable species. It is even less realistic to expect that developing countries with severe resource limitations can effectively address IAS through post-introduction methods.

For all of these reasons, adopting vigorous prevention measures to keep IAS from being introduced in the first place is plainly the best way of decoupling increased trade and increased IAS problems. To be effective, prevention measures must be adopted and implemented in an efficient manner, without undue expenditures of time or money either in designing and justifying those measures or in carrying them out. Finally, to be effective, IAS prevention efforts must also be multilateral in scope, since the IAS problem is a quintessentially international one. Thus, IAS prevention efforts are like a chain, whose strength is determined by its weakest link. No matter how strong some national and regional links in that chain may be, they are inadequate and ultimately doomed to failure by weaker links.

Advocating prevention measures for IAS highlights a central issue in the broader trade-environment debate. Although on the surface regulating goods and pathways to prevent the

introduction of IAS may appear to restrict trade and cause adverse economic effects, such costs must be compared to the potential damage that IAS can do to ecosystems and economies. For example, weak domestic regulations in some Caribbean countries may have led to the introduction of swine fever, which has subsequently resulted in exclusion of those countries' pork products from the U.S. market. Calculating the cost of IAS involves significant uncertainties. Nevertheless, there is no doubt that the costs of IAS are growing and are attributable to increased international trade.

Multilateral environmental agreements and customary international law provide a solid basis for adopting rigorous IAS prevention measures. For example, the Convention on Biological Diversity calls upon parties to prevent the introduction of alien species, while the obligation of a country not to cause environmental damage to another country is a fundamental principle of international law. These obligations compete, however, with the international trade regime, which seeks to facilitate trade in goods and services. The Sanitary and Phytosanitary (SPS) Agreement is the WTO Agreement that most affects IAS prevention efforts, although other agreements, including the General Agree-



ment on Tariffs and Trade (GATT Agreement) and the General Agreement on Trade in Services (GATS Agreement) also affect these efforts. The SPS Agreement contains numerous specific and detailed provisions that could be interpreted as limiting IAS prevention efforts. Indeed, several decisions of the WTO Appellate Body have ruled that particular IAS measures are inconsistent with the SPS Agreement. A pessimistic view of those decisions might be that effective IAS prevention measures cannot be adopted consistent with the SPS Agreement. We do not share that view. Rather, we believe that the SPS Agreement and relevant WTO precedents can and should be interpreted as consistent with effective IAS prevention measures.

Two factors are key to the position that well-designed IAS prevention measures are consistent with the international trade regime. First, there is no reason to concede that the goals of WTO Agreements should take primacy over the needs of IAS prevention, since these goals are of equal status under international law, and the WTO Appellate Body has never ruled otherwise. To the contrary, principles of interpretation dictate that WTO Agreements should be

construed in a manner consistent with environmental objectives – and the Appellate Body has so ruled. Second, it is important to emphasize that the mere fact that regulatory provisions – such as IAS prevention measures – impose restraints on international trade does not make those provisions inconsistent with WTO Agreements. Thus, when IAS prevention measures are designed for the purpose of broad ecosystem protection a finding of inconsistency with trade regime provisions is very unlikely.

We rely on these two factors, as well as several others, in suggesting design principles for IAS prevention measures that will satisfy the international trade regime. These principles are intended to address the most prominent features of the SPS Agreement, which are provisions calling for a scientific basis, risk assessment, least trade-restrictiveness, and consistency of IAS measures. We believe that certain common features can and should be taken into account in satisfying those SPS Agreement requirements. These features include the fact that IAS present a low-probability, high-risk threat; that knowledge about the behavior of species newly introduced into a different



environment is inherently limited; and that severe practical and economic limitations constrain the ability of government agencies – especially those in developing countries – to conduct detailed, quantitative risk assessments. These features justify taking a conservative, precautionary, and cumulative approach in conducting risk assessments and fulfilling the other requirements of the SPS Agreement. Such an approach should seek to link IAS pathways and individual species to facilitate efficiency and comprehensiveness. For example, designing IAS prevention systems in ways that lead to measures regulating pathways while still assessing risks from particular species may be an efficient way to combat IAS while maintaining consistency with the SPS Agreement. Similarly, relying on past assessments and using qualitative analyses also promote efficiency. The Appellate Body has expressly endorsed such an approach.

Systems of IAS prevention should, as appropriate, require internalization of the costs and burdens of IAS prevention (particularly where developing countries are involved) on the part of exporting countries and companies. Doing so would be consistent with the fact that it is exporters and other direct participants in international trade that receive most of the benefits thereof, while society at large in importing countries bear the costs when IAS become established there. Such an allocation of burdens is consistent with the “polluter pays” principle. In the context of provisional IAS measures adopted when definitive information about IAS risks is lacking, although an importing country is ultimately responsible for obtaining additional information to make a final determination, nothing in the SPS Agreement prohibits placing the cost or initial responsibility of obtaining such information on the exporter.

The precautionary principle should be expressly relied on in designing and – if necessary – defending IAS prevention measures. Although the guidance from the Appellate Body in this regard is limited and somewhat ambiguous, good arguments can be crafted for treating precaution as a principle grounded in science that is both an analytically distinct component of risk assessment and at the same time readily integrated into other aspects of such assessments. Thus, for example, where data is limited, the best available scientific information can indicate that reliance on precaution is appropriate in determining whether an IAS prevention measure likely will serve the selected level of protection.

Species list approaches to IAS prevention are effective and usually do not encounter trade agreement concerns. Under recent, highly protective and sophisticated “white list” systems, such as New Zealand’s import health standards for sea containers, prospective introductions of new species are presumed to be detrimental until demonstrated otherwise. These systems are similar in principle to longstanding customs and quarantine measures used by numerous countries for many years. Such measures, even though they can impose considerable cost and delay on international trade, usually are not challenged under the trade regime. These measures provide substantial evidence in support of the view that well-designed IAS prevention measures can and should be found consistent with WTO Agreements, and that the prospect of accusations of inconsistency with trade regimes should not deter countries from proceeding to adopt rigorous IAS prevention measures.



Global Invasive News



CHILE

Exotic Freshwater Fish in Chile

The native freshwater ichthyofauna of Chile consists of 44 species which are of little commercial interest. In addition, there are 26 exotic species, of which 11 (if one includes *Acipenser transmontanus* and *Ameiurus nebulosus*) can be considered truly invasive, based on their naturalisation in the wild and distribution ranges.

Accounts of exotic fish introductions to Chile are providing only a fragmented picture. In 1890, eggs of *Salmo* sp. were imported to a private facility in northern Chile, but there is no evidence that any of these ended up in the wild. It is more likely that the species were introduced as part of a government programme to introduce six salmon species to freshwater lakes and lagoons in 1903. As part of these efforts, the first 400,000 eggs came from Hamburg in Germany and arrived by train via Argentina. The eggs were hatched at the first hatchery in the country at the Blanco River. Hatchlings included fish from numerous species, including the Atlantic salmon (*Salmo salar*), Coho salmon (*Oncorhynchus kisutch*), Chinook (*Oncorhynchus tshawytscha*), Rainbow trout (*Oncorhynchus mykiss*), Brown trout (*Salmo trutta fario*), and Brook trout (*Salvelinus fontinalis*). Records show that some of these were released into several rivers from the Aconcagua River to the Tolten River – and, it took just over a century before the entire country was invaded!

Today, the species composition, trophic interactions, and nutrient dynamics of most of the freshwater systems in Chile are severely affected by the introduced salmonids, perhaps explaining, if only partly, why all of the 44 native freshwater species are currently considered to be threatened.

This article was kindly supplied by Agustin Iriarte Walton and Fabian M. Jaksic of the Center for Advanced Studies in Ecology & Biodiversity, Pontificia Universidad Católica de Chile, Casilla 114-D, Santiago, Chile; e-mail: agustin.iriarte@sag.gob.cl

PUNE, INDIA

Urgent need to address growing incidence of viral threats

When, M K Bhan, Secretary to the Indian Department of Biotechnology (DBT), opened an international symposium on 'Emerging viral infections in the city' on 11 October this year in Pune, he stressed the need for a "roadmap" to tackle the growing incidence of viral threats. This roadmap needed to be developed by both national and international players to ensure that an effective defense system would be put in place. Bhan said that as more and more new viruses emerge, it is now more important than ever to improve existing prevention, detection and control mechanisms in India. The three-day symposium attended by a large number of internationally renowned virologists from India and abroad, was held by the National Institute of Virology as part of its golden jubilee celebrations.

Bhan added that viral pathogens had ingenious ways of survival and adaptation by circumventing the host defense mechanisms. "Future efforts should take note of the scientific developments towards further understanding of the pathogenesis, host parasite interactions, genomics and physiology", he said. With India's preparedness to address emerging viral outbreaks under the spotlight, it was agreed that the current surveillance system in the country needed a major thrust, as presently it does not even have 20 field epidemiology centres.

For more information, visit the DBT at <http://dbtindia.nic.in>



JAPAN

International Conference on "Assessment and control of biological invasion risks"

An increasing recognition of the threat posed by invasive species in Japan prompted the 21st Century COE Program of Yokohama National University and the Biodiversity Network Japan to stage an international conference on this topic between 26 – 29th August, 2004. The program was multidisciplinary and included papers on a variety of topics from risk analysis and the precautionary principle, to control and eradication, databases, the prediction of invasiveness and law and social systems. There was also a roundtable discussion on "Animal welfare and biological invasion" and an open session on the "Establishment of the Invasive Alien Species Act (in Japan) and promotion of effective measures against invasive alien species", the latter, in spite of the heavy rain being caused by the typhoon over Japan, drawing some 240 persons and showing the high level of interest in the issue by members of the general public.

Delegates were also taken on a field trip to see first hand some of the impacts of invasives being experienced in the urban areas around Yokohama. In particular, delegates were exposed to the problems which are being caused by feral raccoons (*Procyon lotor*) which were introduced to Japan some years ago from the USA as pets. Inevitably, some of these pets escaped, and the feral populations have subsequently undergone explosive growth and are causing extensive damage to agricultural crops, houses and native biodiversity.

More information on the conference and the proceedings can be obtained from the website: <http://vege1.kan.ynu.ac.jp/isp/eng.html>

SCOTLAND

Fears about spread of the deadly GS mite.

The GS mite (*gyrodactylus salaris*) has already wiped out entire stocks of salmon across Europe. As fears are mounting that the parasite might infiltrate the United Kingdom via Scandinavia and mainland Europe, leading scientists and fishery managers are now joining forces to look at ways of safeguarding the Tweed from this dangerous parasite. The Tweed, regarded as the most productive salmon rod fishery in the North Atlantic system, supports a local industry that contributes more than £15 million per year to the Borders economy.

The Tweed Foundation has organised a summit meeting to take place in Kelso on 2 November, warning that fishing in the Tweed would be over if the mite would get into these waters. The meeting will explore current knowledge on the mite, the extent of the threat and what should be done to protect the Tweed.

The GS mite, measuring not even half a millimeter in length, uses its tiny claws to attach itself to the skin of young salmon, eating the fish alive. Up to 10 000 mites can infect a single fish before it dies. The effects are devastating – the parasite has already destroyed salmon stocks on more than 20 Norwegian rivers while radically reducing numbers on 20 more. As the Tweed Foundation prepares for the summit, it stresses that the parasite has already spread across both north and south Europe.



For more information, visit the Tweed Foundation at <http://www.tweedortho.com>

TAIWAN

Taiwanese citizens declaring war on the fire ant

Since the dreaded South American fire ant was discovered in Taipei City late in September, residents have frantically been checking their gardens and lawns for signs of the killer ant. Driven by a publicity surge in the media, people were urged by Premier Yu Shyi-kun not to overreact, while Agriculture Minister Lee Ching-lung vowed that the ants would be eradicated within three years.

Lee said that tried and tested control methods from the United States and Australia would be implemented here in a dedicated bid to eradicate the ants. However, there are some scientists who feel that even fiercer methods should be applied to address this serious invasion. The fire ant is a well-known serious invasive pest the world over, having already established in New Zealand, Australia and the United States. It is thought to have arrived in Taiwan by hitchhiking on imported goods. Some believe that it has remained undetected for up to four years, before being discovered last year in croplands in Taoyuan County.

To date it has invaded about 6000 hectares in four areas, including Taipei City, Taipei County, Taoyuan County and Chiayi County, while spreading rapidly in each of these areas. Noting that the United States spends an estimated US\$1 billion per year controlling the ant, activists are demanding more information, stressing the importance to empower the public so that they would be able to identify the ant and report new infestations immediately.

Extracted from an article in The Taipei Times, <http://www.taipetimes.com/News/taiwan/archives/2004/10/03/2003205340>

NEW ZEALAND

Popular garden plants turn nasty

Following a study commissioned by the Auckland Regional Council (ARC), scientists have raised serious concerns about the invasiveness of three popular garden plants. The plants studied, included the phoenix palm (*Phoenix canariensis*), English ivy (*Hedera helix* subspecies *helix* and cultivars) and agapanthus (*Agapanthus praecox* subspecies *orientalis* and *praecox*). The study assessed the distances these plants could spread unassisted, the habitats they were capable of invading and the impacts these invasions would have on the ecosystems. The conclusions were alarming, indicating that they were capable of invading a wide range of natural ecosystems, even spreading into remote and inaccessible areas, with significant impacts on the invaded natural areas.



Although the study confirmed suspicions on the invasiveness of agapanthus and ivy, scientists were unpleasantly surprised by the discovery that the phoenix palm too, was a serious potential invader. ARC Biosecurity Manager Jack Craw says: "When we started looking, we found phoenix palms everywhere: half-grown palms that had self-sown into mangrove wetlands, young plants growing in thick kikuyu on the edges of farm paddocks, even seedlings growing alongside native nikau palm seedlings in dense bush". He added that all three species were spread into some of the most remote and vulnerable habitats by birds, wind and water and were becoming significant weeds in natural areas. Mr. Craw also urged developers and gardeners to consider replacing these plants with non-invasive alternatives in an effort to curb these invasions.

For more information on how to control these species and identify suitable replacements, phone ARC at these species, phone ARC at 09 366 2000 or go to www.arc.govt.nz

AUSTRALIA

Loophole 'down under'

Unsuspecting gardeners in Australia can freely purchase invasive weed species because of a loophole in border control laws which allows for nearly half of the world's 270 000 plant species, including 4000 known weeds to be imported into the country without any risk assessments.

WWF Australia reports that serious flaws in Commonwealth, State and territory laws allow for free sale of invasive species to gardeners in search of ornamental plants. One of the world's most recognised weeds, *lantana camara*, is still sold in Western Australia while bridal creeper can be purchased in NSW. Mr Andreas Glanznig, WWF's biodiversity policy manager says that one weed listed on the Commonwealth Quarantine list, six on the Commonwealth Alert list, and 25% of those on the Weeds of National Significance list are still sold through the gardening industry. He says that "they slip between the cracks between State and territory legislation and they end up being available for sale". While latest studies indicate that weeds are costing the country's agricultural industry more than \$4 billion per year, WWF Australia is pushing hard for tighter control legislation. Presenting a report recommending these changes to the 14th Australian Weeds Conference in September, Mr. Glanznig said that "the most cost-effective response that any government could do to turn off the tap is to make sure that the importation of any new plant species is subject to a risk assessment".

For more information, visit WWF Australia at <http://www.wwf.org.au>

UNITED STATES

Great Lakes invaded by “Frankenfish”



In October authorities reported that a fish caught in a harbour near downtown Chicago, was positively identified as the dreaded Northern Snakehead. This followed the posting of a picture on the Internet of the fish caught by a local fisherman, whereupon scientists with the Illinois Department of Natural Resources confirmed that the sharp-toothed fish was in fact the snakehead. This Chinese native that breathes out of water and moves across dry land, has finally invaded the Great Lakes!

Although never before spotted in the Great Lakes, the fish has been discovered breeding in East Coast ponds, the Potomac River in Virginia, in Florida and elsewhere since 2002. The fish is an aggressive and voracious feeder and has the potential to cause devastating damage to the Great Lakes fishing industry with dire economic and environmental consequences. The Great Lakes is the world largest fresh water body supporting a multi-billion dollar fishing industry. To date the area has had more than its fair share of invasive pests. Some of the latest invasives authorities are battling with, include the zebra mussel, the sea lamprey and the round goby.

Plans now are underway to use electric cables in the harbour to shock the fish to the surface in an effort to find more snakeheads. This comes at the same time as the announcement that an electrified underwater barrier will be erected in the waterway connecting Lake Michigan to the Mississippi River watershed to try and halt the northern spread of the Asian Carp which is another invasive escapee from flooded fish farms, and now within 50 miles of Lake Michigan.

For more information, visit the Illinois Department of Natural Resources at <http://dnr.state.il.us>

UNITED STATES

New Biocontrol Agent for Lygodium

In August, the USDA's Animal and Plant Health Inspection Service (APHIS) issued a permit for the release of a new biocontrol agent in the fight against the Old World climbing fern, *Lygodium microphyllum*. The moth, now known as *Austromusotima camptonozale*, is the first biocontrol agent slated for release against Lygodium. The fern, native to wet areas in the Old World tropics and subtropics from western Africa to eastern and southern Africa, and eastern India across southeast Asia to northern Australia and the Pacific to Tahiti, naturalized in Florida in 1965 after it entered the state as a commercial ornamental plant.

It is now a known invasive weed in south Florida, threatening the wetland communities in the Everglades ecosystem. Because of its explosive growth and rapid spread in recent years, there is growing concern about its ability to dominate native vegetation. The release of the new biocontrol agent is therefore well-timed and much needed.

For more on this new biocontrol agent, visit www.aphis.usda.gov/ppq/weeds

UNITED STATES

Rhododendron Clear-Up in Snowdonia

Rapidly-spreading *Rhododendron ponticum* is threatening the unique habitat of Snowdonia by progressively outcompeting the native species in the region. This has led to a major environmental effort involving more than 600 people from across Britain joining forces to get rid of the invasive weed in National Trust land. To date it has already taken root over thousands of hectares in the National Park and elsewhere in the region, and is still spreading. It poses one of the greatest threats to the internationally important native woodland and heath land habitats of Snowdonia.

As the plant is poisonous, it creates a 'green desert', where nothing can eat it or grow around it. As they set fire to piles of removed rhododendron, the National Trust volunteers proudly admit that they are making a huge hands-on difference in the invasive battle - and although admitting that it involves hard work, they also say that it is "quite good fun too".

Extracted from a story from BBC News: http://bbc.co.uk/go/pr/fr/-/2/uk_news/wales/north_west/3689774.stm



CHILE

Monk Parakeets invading Chile



The newest, and possibly most troublesome invasive species in Chile is the monk parakeet (*Myiopsitta monachus*). This species was released by private citizens in 1972, in the eastern parts of Santiago city. Since then, over 24,000 monk parakeets have been legally imported from Argentina and Uruguay for the pet trade industry. To date, the species has spread throughout central Chile, with breeding groups now present in

more than 20 medium and large cities across the country. In a preliminary survey, more than 250 breeding sites were recorded over a range of 2300 km. A major negative impact of the monk parakeet in Chile is the damage it causes to fruit and ornamental trees.

In Argentina, monk parakeets cost the country over US\$ 1 billion per year, due to about 15% of corn and sunflower crop losses. But some scientists still believe that the bird's reputation as an agricultural pest is overstated. Interestingly, feral colonies of monk parakeets have been present in the United States for over 30 years and they have yet to show the massive outbreaks and agricultural damages once predicted. Nevertheless, an import ban on monk parakeets has been in effect in Chile since 1997. The Chilean government is also currently investigating control methods in an effort to identify the best option and to find a way to eradicate this species from areas where the numbers are still low.

This article was kindly supplied by Agustin Iriarte Walton and Fabian M. Jaksic of the Center for Advanced Studies in Ecology & Biodiversity, Pontificia Universidad Católica de Chile, Casilla 114-D, Santiago, Chile; e-mail: agustin.iriarte@sag.gob.cl

NORDIC-BALTIC REGION

NOBANIS – A gateway to IAS information in the Nordic-Baltic region

The Nordic-Baltic Network on Invasive Species (NOBANIS) provides a useful new regional portal and gateway on IAS information for the region. NOBANIS will

- develop a catalogue of databases on IAS in the region
- develop a distributed but integrated network of these databases
- develop a compilation of fact sheets for selected IAS in the region, and
- promote the exchange of information on the regulation, eradication and control of IAS species, through contact information, literature and legislation on each of the countries in the region.

This new portal will cover marine, freshwater and terrestrial environments, as well as IAS regional news while also tracking regional and national IAS projects. The project, supported by the Nordic Council of Ministers, also plans to link with other regional and international IAS networks. Participating countries include Denmark, Estonia, Finland, Germany, Iceland, Latvia, Lithuania, Norway, Poland, Russian Federation and Sweden.

For more information, visit NOBANIS at www.sns.dk/nobanis/ or contact project managers Hans Erik Svart (hes@sns.dk) or Melanie Josefsson (Melanie.Josefsson@snv.slu.se) or project coordinator, Inger Weidema (irw@sns.dk)

SOUTH AFRICA

South Africa urged to destroy alien plants

At the start of the third annual National Weedbuster Week, on 11 October, the Minister of Water Affairs and Forestry, Buyelwa Sonjica, said that invasive plants must be driven out of the country. She urged individuals and government departments alike to join forces in a concerted effort to rid the country of these unwelcome invaders, saying that “we want people to voluntarily and proactively help contain the damage (alien plants) will otherwise inflict on our water security, productive use of land and the ecological functioning of natural systems”.

WeedBuster Week is linked to similar initiatives in Australia and New Zealand and globally to the Global Invasive Species Programme (GISP). It aims to raise national awareness on invasive plants, which have already invaded over 10 million hectares, accounting for 8% of South African land. These plants not only drain the country of its scarce water reserves, but also severely threaten its rich biodiversity as they spread across the land.

Addressing the issue, is the highly successful state-funded Working for Water Programme, which runs national eradication and control programmes while at the same time providing jobs for over 20 000 people from previously disadvantaged communities. Not only do teams clear invasives from infested areas, but they also provide secondary products from the wood, including firewood, charcoal, crafts, furniture, toys and building materials. To date, the destruction of invasive plants has released about 48 to 56 million cubic metres of water a year.

For more information, contact Working for Water at www.dwaf.gov.za/wfw/

SWITZERLAND

Aliens threatening Switzerland

At the Neobiota International Conference in Bern in September, scientists warned that alien plants and animals pose a serious threat to Swiss biodiversity, the national economy and human health. One of the organizers, Wolfgang Nentwig of Bern University said that the Swiss public needed to be more aware of the negative impact of invasive species on the country. A well-known example of an invasive species is ragweed which arrived in grain shipments from North America, and causes discomfort to allergy sufferers. Of course there are many more species, including giant hogweed, which originated in the Caucasus, spreading into Europe some 40 years ago.

As far as animals are concerned, the recent appearance of two unrelated mammals in central Europe is the cause for serious concern. These are the North American raccoon and the Asian raccoon-dog. In areas where they are already established, scientists have found a significant

drop in bird populations, which in turn causes many ripple effects in the environment. While invasive species are recognised as a threat in the country, Nentwig says that researchers and managers still face an uphill battle, with limited funding opportunities for research and eradication programmes.

For more on the Conference, visit www.neobiota.unibe.ch



GloBallast survey in Mombasa kick-starts regional interest

Adnan Awad, GloBallast Programme, South Africa

At a training workshop held in August, in Kenya at the port of Mombasa, the South African office of the Global Ballast Water Management Programme (GloBallast) provided training in port biological baseline survey methods to representatives from seven countries of southern and eastern Africa. Delegates from Angola, Namibia, Mozambique, Kenya, Seychelles, Mauritius, and the Comoros participated in the three day course, which aimed to outline and demonstrate all aspects of the port survey process.

The GloBallast workshop, co-sponsored by Kenya Marine & Fisheries Research Institute (KMFRI), Kenya Ports Authority, IUCN and the Benguela Current Large Marine Ecosystem Program, highlighted the problem of marine invasive species and the need to conduct such surveys, both for generation of baseline information and detection of introduced species. Delegates also initiated planning for surveys at their home ports, working in groups to review port characteristics and select target sites. Local logistics and capacity issues emerged as the largest challenges facing the teams planning these future surveys for other African ports.

The workshop was scheduled to overlap with the first day of the GloBallast survey of the Port of Mombasa, such that the international guests could benefit from observing survey demonstrations in the field. Following the closure of the workshop, the actual port survey in Mombasa continued over a further ten-day period, with samples taken from over 30 sites around the port area, representing all habitat types. Although preliminary assessment of the samples taken did not reveal any obvious pest species, the results of the survey may take up to one year to obtain, as the taxonomic analysis of the samples is a lengthy process. The samples will be lodged with the National Museum of Kenya for long-term

curation, and the data will be housed at KMFRI where it will be built upon through further surveys and monitoring, and will function as a baseline for future comparisons. The equipment and training necessary for this ongoing work was also provided through this GloBallast initiative.

Furthermore, the survey aimed to test diver-based sampling methods against boat-based and quay-side sampling. Although the logistic, cost and safety considerations are generally higher for diver-based sampling, the samples yielded tend to be of far better quality and usefulness for scientific purposes. The report resulting from these comparison tests will therefore provide cost-benefit options for managers embarking on similar surveys.

Both the training workshop and the port survey were conducted with the support of the Kenyan government through the National Environment Management Administration and the Ministry of Fisheries & Livestock Development. The activities are the first in the region, outside of South Africa, to address the issue of marine invasive species under the umbrella of the Nairobi Convention. The 4th COP meeting of the Nairobi Convention, held in July 2004 in Antananarivo, agreed to address marine invasive species in cooperation with ongoing GloBallast activities. The long-term coordination of such activities will therefore likely fall under the auspices of this convention.



A New Director for GISP

by Dr Mark Lonsdale Chairperson, GISP Board

It is official! Dr. Lynn Jackson, who was acting as GISP Director for the last few months has been appointed as new Director of the GISP Secretariat, effective from September this year.

Having received her PhD in Marine Science from the University of South Carolina some 20 years ago, Lynn has been actively involved at the cutting edge of marine science ever since. She joined the South African Department of Environmental Affairs in 1980 during her PhD years and quickly found herself heading the national marine pollution division.

Specialising in marine pollution, Lynn became well known and respected the world over for her academic and practical contributions to the field. Her work here included:

- research on the biological effects of marine pollution
- the development and implementation of various marine pollution management techniques, including sensitivity mapping and oil spill contingency planning
- hands-on coordination of the environmental response to numerous serious oil spills around the South African coast
- the administration of the London Convention in South Africa, and
- representing South Africa at various international fora, including the Marine Environment Protection Committee of the IMO, UNEP-GPA meetings and both the Abidjan and Nairobi Conventions.

Lynn made history when she was elected the first ever female Chair of the Scientific Group of the London Convention in 2000. In recent years, leading up to her current



position, she participated in the planning and execution of various GEF/World Bank-funded projects, including the Benguela Current Large Marine Ecosystem Project (BCLME) and the Globallast Programme, a global programme aimed at assisting developing countries with the implementation of IMO Guidelines on ballast water management.

Since joining the GISP Secretariat in June 2003 as Programme Coordinator, Lynn has been working tirelessly to help establish and steer the new Secretariat towards becoming an effective international networking and partnership umbrella in the global fight against invasive species. Bringing with her many years of experience in the international environmental science arena, she has played a key role in aiding the GISP Partnership to fulfill its obligations to the Convention on Biological Diversity (CBD), as well as to its contracting

parties and other stakeholders. Lynn is currently driving the development of a global GEF project focusing on IAS capacity building in developing countries, while also focusing on a variety of exciting new initiatives in the making under the GISP partnership umbrella.

The GISP board is delighted that the Secretariat is in such dedicated hands, and we are looking forward to new and innovative tools and projects from GISP under Lynn's guidance. We all know that the global IAS onslaught is enormous in scope and impact, but the Board is confident that Lynn, as the person steering the Secretariat from their offices in Cape Town, is up to this challenge.

Congratulations, Lynn!

Invasives in Print

recent IAS publications



Tropical Asia Invaded – The growing danger of invasive alien species

The second in the GISP 'Invaded' series looks at a selection of invasive species from all taxa that have significant impacts across the tropical Asian region. Known for its beauty and rich biodiversity, this region is highly vulnerable to invasive species impacts. Some of the more prominent species are highlighted, while information on tried and tested control methods is provided.

This is a popular publication, which is aimed at raising awareness, rather than a technical book. It is

written as a series of short fact sheets, and the style is uncomplicated and user-friendly. In addition to focusing on major invasives impacting on the region, 'Tropical Asia Invaded' also highlights, in a separate section, the more prominent invasive species that have spread from here to other parts of the globe, emphasising the often over-looked fact that each region's native biological riches may be another's high-cost invasive pests.

This publication follows the same format as the previous booklet in the series, entitled 'Africa Invaded', which focuses on the African Continent. Both publications are published by the GISP Secretariat with support from the World Bank through its Bank-Netherlands Partnership Programme (BNPP) and Development Grant Facility (DGF). Hard copies – in limited numbers – can be obtained from the GISP offices in Cape Town, while electronic versions are downloadable from the GISP website.

Invasive Alien Species – A Challenge to NEPAD

A striking booklet positioning the impact of invasives within the context of the New Partnership for Africa's

Development (NEPAD), was recently published by the South African National Biodiversity Institute and GISP. The brochure effectively highlights the devastation and enormous costs brought about by invasive species on the African continent. It aptly links IAS to issues like poverty, food security and social development in the region, while emphasising the urgency of, and need for, an integrated regional approach to the IAS issue.

The brochure was sponsored by the government of Norway, through the South African Department of Environmental Affairs and Tourism and is available from the Working for Water offices at Private Bag X4390, Cape Town, 8000 or through weedbuster@dwaf.gov.za.



New fact sheet series on invasive plants by the South African Working for Water Programme

Published in September, a new colourful series of leaflets on invasive plant species in South Africa has seen the light. These practical fact sheet-style leaflets describe the taxonomy, distribution, legislation and control options for the most serious invader plants. While the series is written

for South Africa, many of these plants are problem species elsewhere and the leaflets may well be very useful to officials from a range of other countries.

For more information, or to obtain copies, contact the Working for Water office at the address given above.





A technical publication exploring invasive vectors and management options

'Invasive Species – Vectors and Management Strategies' edited by G M Ruiz and J T Carlton, is now available from Island Press. This substantial volume explores current knowledge and policies

surrounding invasion vectors as a result of work done under GISP Phase I which focused, amongst other things, on understanding invasion vectors and identifying management strategies to prevent further invasions. The publication followed after the proceedings from a GISP workshop held on the topic in 1999, were further developed and expanded into three sections.

Each of the three sections of the book has a different purpose, with the first one focusing on our present understanding of the operation of vectors, the second examining different management approaches and the final section presenting an overview and synthesis of vector ecology.

ISBN no: 1-55963-903-2

An update on invasive aquatics in Europe



Kluwer Academic Publishers has recently updated and reprinted the renowned publication 'Invasive Aquatic Species of Europe – Distribution, Impacts and Management' first published in 1998. This comprehensive technical guide, edited by E Leppäkoski,

S Gollasch and S Olenin, explores individual species, their status, the vectors and impacts. It also provides very useful regional overviews, risk assessment and management strategies, as well as useful databases.

ISBN no: 1-4020-0837-6

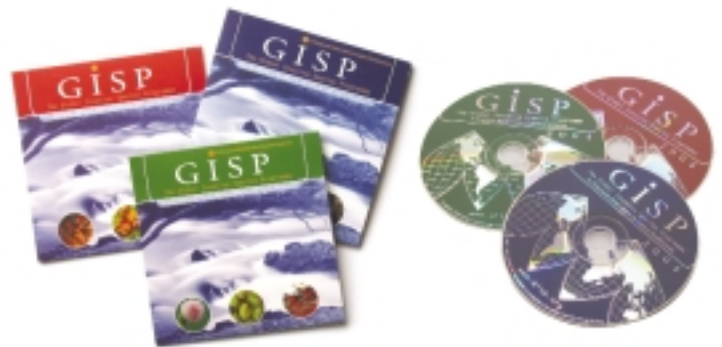
Proceedings from a West Africa Regional Workshop on IAS published

GISP, in partnership with CABI, IUCN, the US Department of State and the Ministry of Environment and Science in Ghana, published the proceedings from the workshop 'Prevention and Management of Invasive Alien: Forging Cooperation throughout West Africa' which was held in Accra in March this year. The proceedings are available as two separate volumes - one French and one English – which are currently distributed by the CABI African Regional Centre in Nairobi. The volumes are also downloadable from the GISP website. Contact Dr. Sarah Simons at CABI-ARC, s.simons@cabi.org for more information on the workshop.



GISP on DISK

The GISP Secretariat has recently released French, Spanish and English CD's containing core GISP publications. Colour-coded according to language, each CD contains the GISP Toolkit, the GISP Global Strategy and GISP newsletters published to date. Contact the GISP Secretariat for copies.



Australian CRC Annual Weed Report

The Cooperative Research Centre for Australian Weed Management has released its annual report which can be downloaded from their website at www.weeds.crc.org.au.

IAS events highlights:

UNITED STATES AND CHINA MAKING PROGRESS ON WORKSHOP TO DEVELOP AN APEC STRATEGY ON INVASIVE ALIEN SPECIES

A U.S. proposal to develop an APEC strategy on invasive alien species (IAS) was endorsed by the senior officials in Phuket, Thailand in August 2003. China has graciously offered to host the meeting. The U.S. and China have agreed to hold the meeting sometime in the spring of 2005, in Beijing. The 2005 date of the workshop will allow ample time to reflect the initiatives of the May 2004 meeting of the APEC marine resources working group on marine pests

into the agenda. Initial funding for the workshop is being provided by a grant from the U.S. National Science Foundation (NSF), awarded to invasive species experts Drs. George Roderick and Jason Shogren. They will play key roles in helping to organize the meeting, along with U.S. and Chinese government representatives, and the co-sponsoring APEC economies Australia and Chile who have been particularly active in past APEC work on invasive marine pests.

The steering committee for the workshop is forming, and an agenda is being developed to meet the needs of all APEC economies facing the challenges posed by invasive species. The agenda being considered will provide representation of

Overview of upcoming IAS events

DATE	EVENT	WHERE	CONTACT DETAILS
8-10 Nov	Third International Conference on Invasive <i>Spartina</i>	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
22-26 Nov	IPPC IPP Capacity Building Workshop	Asia	http://www.ippc.int/IPP/En/default.htm
30 Nov-2 Dec	IPPC SPS Regional Workshop	Singapore	http://www.ippc.int/IPP/En/default.htm
1-4 Dec	Joint International Workshop on Biodiversity Informatics: An Indo-US Initiative	Pune, India	Kathryn Johnson kjohnson@iiaweb.com
13-17 Dec	IPPC Technical Panel Phytosanitary Treatments meeting	Raleigh, North Carolina, USA	http://www.ippc.int/IPP/En/default.htm
2005			
1 Feb 2005 (tentative)	IPPC Phytosanitary Capacity Evaluation Facilitation Workshop	Rome, Italy	http://www.ippc.int/IPP/En/default.htm
1 February (tentative)	IPPC IPP Capacity Building Workshop	Africa	http://www.ippc.int/IPP/En/default.htm
7-10 Feb	Weed Science Society of America Annual Meeting	Honolulu, Hawaii	www.wssa.net
7-10 Feb	16th Conference of the OIE Regional Commission for Africa	Khartoum, Sudan	http://www.oie.int/eng/en_index.htm



An important announcement:

Expressions of interest can now be made for the 15th Australian Weeds Conference, Adelaide Convention Centre, South Australia, 24 - 28 September 2006.

Theme: 'Managing Weeds in a Changing Climate'

**Please visit:
www.plevin.com.au/15AWC2006**

regional scientific and economic perspectives on IAS issues, working group sessions to define common APEC goals, gap analyses of current approaches in addressing IAS, and development of trade-sector strategies for dealing with IAS. The sponsors of the meeting look forward to broad participation from all APEC economies at this SOM-endorsed event in 2005. Further detailed information will be forthcoming soon.

For questions, please contact Dr. Jeff Fisher at the U.S. Department of State, Bureau of Oceans and International Environmental and Scientific Affairs, (202) 647-0199, fisherjp@state.gov.

7-11 Feb	Tenth meeting of Subsidiary Body of Scientific, Technical and Technological Advice (CBD SBSTTA-10)	Bangkok, Thailand	http://www.biodiv.org/default.aspx
14-18 Feb (tentative)	IPPC Technical Panel on Forest Quarantine Issues Meeting	Victoria, Canada	http://www.ippc.int/IPP/En/default.htm
21-23 Feb (tentative)	IPPC International Forest Quarantine Research Group 2nd Meeting	Victoria, Canada	http://www.ippc.int/IPP/En/default.htm
Feb (tentative)	NEPAD Fish for All Summit	Abuja, Nigeria	http://www.nepad.org
14-18 March (tentative)	IPPC Post-entry Quarantine Facilities Expert Working Group Meeting	Not determined	http://www.ippc.int/IPP/En/default.htm
1 April (tentative)	IPPC IPP Capacity Building Workshop	Caribbean	http://www.ippc.int/IPP/En/default.htm
4-8 April	IPPC Interim Commission for Phytosanitary Measures 7th session	Rome, Italy April (tentative)	http://www.ippc.int/IPP/En/default.htm APEC Workshop to Address
April	APEC Workshop to Address Invasive Alien Species	China	Jeff Fisher fisherjp@state.gov (tentative)
1 May (tentative)	IPPC IPP Capacity Building Workshop (Pacific)	Apia, Samoa	http://www.ippc.int/IPP/En/default.htm
2-6 May (tentative)	IPPC Standards Committee Meeting	Rome, Italy	http://www.ippc.int/IPP/En/default.htm
2-6 May	Australasian Vertebrate Pest Conference	Wellington, New Zealand	www.landcareresearch.co.nz/news/conferences/vertebratepest/
16-20 May (tentative)	IPPC Ad Hoc Technical Expert Group Meeting on CBD Invasive Alien Species (gaps and inconsistencies)	Auckland, New Zealand	http://www.ippc.int/IPP/En/default.htm
23-27 May (tentative)	Research Protocols for Phytosanitary Measures Expert Working Group Meeting	Not determined	http://www.ippc.int/IPP/En/default.htm

6-10 June	IPPC Expert Working Group on Debarking Meeting	Oslo, Norway	http://www.ippc.int/IPP/En/default.htm
9-11 June	Introduction and Spread of Invasive Species: An International British Crop Protection Council (BCPC) Symposium	Berlin, Germany	www.bcpc.org/invasive
11-15 July	CBD Ad Hoc Technical Expert Group Meeting on Marine and Coastal Biodiversity	Montreal, Canada	http://www.biodiv.org/default.aspx
16-20 July	28th World Veterinary Congress	Minneapolis, Minnesota, USA	wvc2005@avma.org
25-29 July	CBD AD Hoc Technical Expert Group on the review of implementation of the Programme of Work on Forest Biodiversity	Bonn, Germany	http://www.biodiv.org/default.aspx
18-22 Sept	8th Conference of the OIE Regional Commission for the Middle East	Manama, Bahrain	http://www.oie.int/eng/en_index.htm
Autumn 2005	Ecology and Management of Alien Plant Invasions (EMAPI) 8th annual meeting	Poland	John Brock (480)727-1240 or john.brock@asu.edu
23-27 October	The First international Marine Protected Geelong Areas Congress	Australia	http://www.impacongress.org/
24-26 October (tentative)	CBD Latin American and Caribbean Regional Workshop on the Clearing-House Mechanism	Not determined	http://www.biodiv.org/default.aspx
November (tentative)	24th Conference of the OIE Regional Commission for Asia, the Far East and Oceania	Republic of Korea	http://www.oie.int/eng/en_index.htm
5-9 Dec	Eleventh meeting of Subsidiary Body of Scientific, Technical and Technological Advice (CBD SBSTTA-11)	Guatemala	http://www.biodiv.org/default.aspx

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8-19 May (tentative)	Eighth Meeting of the Conference of the Parties to the Convention on Biological Diversity (COP-8)	Brazil	http://www.biodiv.org
19-25 June (tentative)	Latin American Botanical Congress	Santo Domingo, Dominican Republic	Brian Boom, The New York Botanical Garden, bboom@nybg.org

2007

17-21 Sept	9th International Conference on the Ecology and Management of Alien Plant Invasions	Perth, Australia	http://www.congresswest.com.au/emapi9/
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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 him 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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