Pacific Islands Species Forum

CELEBRATING PACIFIC SPECIES
Moving from science to conservation action by sharing lessons learned and setting future priorities
Honiara, Solomon Islands. 25-27 April, 2012

Proceedings of the inaugural Pacific Islands Species Forum

Heritage Park Hotel, Honiara, Solomon Islands
Wednesday 25th – Friday 27th April, 2012

Contents

Overview of the Pacific Islands Species Forum

The Pacific Islands Species Forum ("Species Forum") provided the first opportunity for scientists, researchers, policy-makers, and conservation practitioners to come together and share their scientific knowledge and research relating specifically to species conservation in the Pacific.

The small island states of the Pacific are isolated, with distance proving a major barrier to the spread of knowledge and facilitation of support networks. As such, there has been a lack of consolidated approaches on species issues within the Pacific Island Countries and Territories (PICTs) and species conservation is often low on the agenda. The Species Forum aimed to provide some support needed by experts working in isolation, whilst injecting enthusiasm for people to continue working on key species conservation issues in remote locations.

The Species Forum consisted of presentations, discussions and break out groups with the aim of generating information that would be valuable for governments and communities in conservation planning and species conservation efforts. Current scientific knowledge on species was presented, recent conservation efforts were discussed, and ways of moving towards further action for halting biodiversity loss were suggested.

The Species Forum was structured around 4 themes: Knowledge and Research; Continuing Challenges; Celebrating Success; and The Way Forward, and aimed to meet the following objectives:

- Identify known threatened species and their conservation needs
- Identify major threats acting on such species
- Move towards a process for prioritizing species for future research and conservation action
- Ensure that threatened and priority species, as well as measures to protect them, are included in NBSAPs and other regional plans

Over the three day Species Forum, more than 70 participants shared a diverse range of information on Pacific Island species including data gaps, results of implementation on the ground, lessons learned and the way forward in determining the status of species, their conservation needs and how regional policies can protect them.

Presentations and discussions relating to the four Forum themes highlighted the incredible diversity of research and data collection taking place on terrestrial, freshwater and marine species in the Pacific, including endemic birds, dragonflies, rare plants, frogs, snails, reptiles, mammals and fishes. The need for further research was highlighted on numerous occasions – even for taxonomic groups that we think we know a lot about (e.g. birds, frogs and other vertebrates) current genetic research is suggesting that many sub-species and new species may exist

The devastating impact of invasive species such as rats and ants was repeatedly highlighted as a threat to many species on isolated island ecosystems. Other significant threats such as logging, mining, habitat destruction, the conversion of land for agriculture, and the potential effects of climate change were also recognized as barriers to the survival of many species.

On a positive note, many success stories were highlighted, including the increased recognition by governments of the need for environmental policies, the strengthened involvement of communities and landowners in carrying out on the ground action, and increased awareness of the importance of biosecurity in our islands.

The forum recognized that research efforts in some areas is substantial, however many challenges exist in ensuring that data, including traditional knowledge, reaches decision and policy makers and translates into national as well as regional policies and strategies. The need for improving capacity of local graduates and researchers for carrying out field work was also identified as a priority area.

A large percentage of communities in the region rely directly on the contribution of native species for their livelihoods (e.g. for food, fuel, building materials, clean water). However, despite the social, cultural and economic significance and importance of species they are still under-valued, and Pacific Islanders must recognize the true value of our species and ecosystems.

The Species Forum convened unique perspectives on species research and management and calls for urgent actions to be taken to mitigate threats to Pacific Islands species, including direct species management and recovery, invasive species management and biosecurity, and minimizing climate change impacts and habitat loss and transformation. This will require reassessment of our prioritization processes in habitat and species conservation planning, identifying initiatives that can integrate improved knowledge into activities that translate into species conservation, and exploring new ways or mechanisms to fund species conservation and management at all levels of society. Additionally, the Species Forum raised the profile of species issues beyond the scientific community and gained the attention of politicians, media and the general public on the importance of species to ecosystems.

A set of recommendations for governments and organizations working on species conservation in the Pacific were made by participants of the Species Forum, as seen in Appendix 1. It is anticipated that these will contribute to national and regional planning, as well as understanding of the Convention on Biological Diversity Aichi Targets. In particular, the recommendations can be used to assist governments in achieving Target 12: By 2020 the extinction of known threatened species has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained. However, much of the information shared over the three day Species Forum can also feed into other targets. For example: Target 5, which relates to the reduction of habitat loss; Target 9, which aims to control and eradicate invasive species; Target 11, concerning the establishment of terrestrial and marine protected areas; and Target 20, which seeks to share and apply biodiversity knowledge.

The Species Forum is the first step, at the regional level, for scientists and conservation partners to share their work and prioritize their actions. The Species Forum will become a biennial event with the next Forum scheduled to take place in 2014. At the international level, the IUCN World Species Congress planned for 2015 will be the platform to showcase Pacific Island species to the world.

The Pacific Islands Species Forum was made possible through the generous support of the Critical Ecosystem Partnership Fund, the Fonds Pacifique, IUCN Oceania, and members of the Pacific Islands Round Table for Nature Conservation, most notably Birdlife International, SPREP, USP and CI Pacific). The government of the Solomon Islands generously hosted the meeting.

Knowledge and Research

Key points from presentations and discussion

- There is a need for further inventories and documentation, for existing and un-described species. A "bio-blitz" could be helpful for some countries and more surveys are required for most taxonomic groups. Related to this, we need to get better at standardizing Checklists (including nomenclature).
- There are many gaps in our knowledge of species – in particular amongst plants, fungi and invertebrates. Many other gaps exist (e.g. in marine and freshwater ecosystems) and these should also be addressed.
- A species focused reassessment of national and regional priorities is required
- We need to consolidate existing information at national and regional levels. Data that we are compiling, and the enormous amount of grey literature, must be shared with communities, governments and decision-makers. Databases (especially online) would be extremely useful, as would a Clearing House Mechanism which provides links to existing databases. SPREP would be the best organization to facilitate this, drawing on examples from the Cook Islands and GBIF and with the assistance of other PIRT members.
- Cultural and traditional knowledge must be captured, and the importance of land/resource owners acknowledged
- The issue of Intellectual Property Rights and Access and Benefit Sharing will become increasingly important
- The sharing of information (especially locations) on rare species must be monitored to ensure their protection
- Research and collection permits are often difficult to obtain, and some sort of assistance is often needed to facilitate obtaining them. However, researchers must also recognize and follow any relevant laws of the country in which they are carrying out research, especially related to PAs and ABS.
- Local Capacity Building is urgently required, in order to increase and support the number of qualified staff working as taxonomists, researchers. Research positions at established universities and similar institutions are one option. Student exchanges and local scholarships should also be sought and established
- We need to get better at utilizing the huge international expertise and networks – for advice, assistance, validation of work, and identifying people working on similar issues. Is there a need for additional (e.g. regional, sub-group) Specialist Groups of IUCN's Species Survival Commission network – e.g. for Pacific Islands plants? Can we increase national and regional membership of existing Specialist Groups?
- The revival of existing groups and networks such as PACINET and the Pacific Islands Round Table Species Working Group was identified as something that should be explored, as well as ensuring the maintenance of other networks such as SPREP's marine groups. List-serves were seen as important to re-establish, in order to encourage discussions, seek advice, share news and opportunities and explore collaborative possibilities

Recommendations made by the PISF relating to our knowledge

- **Consolidate all existing data including grey literature into a regional database, inventories and checklists, to be accessible by communities, NGOs and governments.**

- **Commit to prioritization of species for further research and inclusion in the IUCN Red List, recognizing the especially huge gaps in our knowledge of plants, fungi and invertebrates, appreciating that other taxonomic and geographic gaps do exist and focusing on Data Deficient, community dependent and threatened species**

- **Improve the coordination of species activities in the Pacific, in order to allow for stronger collaboration, reduction of duplication, and effective utilization of available resources between countries and territories. Identify national and regional experts and researchers working on similar country and regional level priorities and establish or re-invigorate necessary networks, list-serves and participation in IUCN's SSC Specialist Groups in order to coordinate species activities in the region.**

- **Request that regional organizations and governments assist with the facilitation of research and collection permits for researchers where appropriate, in order to advance our scientific knowledge and share expertise**

- **Commit to developing a strategy to increase the capacity of students, graduates, social scientists, economists and ecological researchers in taxonomic skills and research capabilities in the region, and identify job opportunities to encourage the continuation of species research, conservation and protection. This should include a clear financing component.**

Continuing Challenges

Key points from presentations and discussion

- Challenges to species conservation include increasing human populations, over-exploitation of resources, a lack of knowledge, and a lack of trained researchers.
- The funding issue is something faced by everyone. We need to think about ways to explore funding opportunities collaboratively and share information on potential sources. The Mohammed Bin Zayed Conservation Fund is one source especially useful for research on Date Deficient species. If we're serious about species conservation, we need a better funding model.
- We need to improve government and private sector engagement to develop project partnerships that address community and environmental priorities e.g. we should review regional large-scale industrial projects (e.g. northern Australia) where offset programmes (inshore dolphin, dugong and turtle monitoring) are nominated as multi-million dollar indigenous/environmental engagement activities for periods of at least 10 years
- When thinking about prioritization of efforts, we must think about conserving habitats, not just species.
- Socio-economic effects of invasives and other major threats including habitat loss and overharvesting must be studied. For example, invasive ants disrupting children's nutrition and food security in some villages because stings inhibit parents from bringing children to crop gardens, resulting in increased demand for bought food.
- Understanding the role of species in ecosystem functions is an important challenge to overcome
- Preventing accidental introductions and increasing biosecurity efforts is vital on small islands.
- Corruption at all levels is recognized as a major threat to species protection and conservation, especially when dealing with issues such as logging (including illegal logging)and other habitat degradation/conversion for economic crops such as palm oil. Good leaders are required at all relevant levels.
- The sustainability of projects must be explored. How do we move away from donor dependency to community ownership, and start conserving species for their own inherent value? The environment belongs to us, our livelihoods depend on other species, and we must look after our resources from the heart.
- We manage people, not nature. Human attitudes are often a barrier to conservation and we must work to change these. We need to see a shift in attitude to valuing species, ecosystems and placing a value of natural capital into regional and national sustainability economics.
- The diversity of conservation activities occurring in the Pacific Islands is outstanding, but still the messages are not getting out! Communication is a huge challenge.
- Often countries' actions are out of line with their international commitments – government and researchers must work closely to ensure that the correct priorities are included in plans and that we meet set targets.
- Access to information and knowledge for communities continues to be an issue, which is often exacerbated by expensive access to technology.

Recommendations made by the PISF relating to Challenges

- **Ensure that all stakeholders are collaboratively engaged in species research and ecosystem conservation, including government representatives, politicians, community leaders, educators, conservation champions, private sector and the general public – this is a critical step towards addressing the many challenges that we face and ensuring that biodiversity targets relating to the future survival of species are met.**

- **Ensure that good and transparent governance underpins the engagement of all stakeholders, leading to improved policies, legislation, compliance and enforcement and ultimately the protection of species and their habitats.**

- **Recognize the true economic value and importance of species that we rely on for livelihoods and future sustainability: Link to education systems and school curricula in order to develop community- appropriate information and increase awareness and understanding of the importance and value of species, especially those that are less well-known.**

- **Explore innovative funding mechanisms such as crowd-funding, where internet-campaigns solicit funds for the conservation of species, or putting conditions on extractive industries that ensures they pay some sort of tax or fee to contribute to biodiversity conservation, as is the case in some parts of the world, and/or the setting up of trust accounts within governments or organizations.**

Celebrating Success

Key points from presentations and discussion

- There has been international recognition of conservation successes (e.g. the UN Equator Prize for outstanding community efforts towards sustainable use of biodiversity, for the Tetepare Descendants Association, who have protected the natural environment of Tetepare Island in the Solomon Islands).
- Increasing inclusion of children and environmental knowledge and building environmental issues into school curricula (e.g. the Vanuatu drama group Wan Smolbag's travelling plays about turtle conservation, and the Wildlife Conservation Society in Fiji 'The Adventures of Joji Goby' comic and puppet show to explain freshwater fish conservation).
- The establishment of protected areas and sanctuaries (especially for marine species, e.g. Locally Managed Marine Area Networks such as Navakavu in Fiji, where species diversity and abundance has dramatically increased)
- An increased number of graduates from universities such as USP is noticed, however, limited opportunities for graduate employment in conservation still exist.
- Governments are increasingly recognizing the importance of international policies relating to the environment
- The central role of communities and landowners in developing conservation programmes is increasingly important (e.g. the Kolombangara Island Biodiversity Conservation Association, which conserves upland forest and has won a legal challenge to protect it from logging).
- Efforts to improve biosecurity and subsequent actions have significantly increased.
- Collaborative efforts and taxonomic knowledge have increased
- Community-based and national level networks for learning and sharing species conservation are good examples of capacity building, sharing of resources, accelerating action on the ground and community empowerment.
- Innovative ways of communicating should be encouraged, as these are the key to successful messages being relayed from scientists and researchers to other levels of society: e.g. Local radio, Newspaper articles, Campaigns, Factsheets and posters, Puppet shows, Drama, Film and video, Websites for global audiences, Unique approaches such as the Vaka voyage, Competitions for countries or organizations doing "the best job"
- We need to become less shy with our work.

Recommendations made by the PISF relating to Success

- **Document and Communicate our success stories more effectively and more often, and especially towards decision-makers.**

- **Encourage the use of simple yet innovative communication technologies to ensure that conservation messages are relevant to local and national audiences, and that success stories can lead to replication and feed into policy across the Pacific.**

- **Mobilize and enable schools, community educators, national level networks such as the Locally Managed Marine Area network and youth groups, to ensure that local and cultural knowledge is incorporated with scientific knowledge relating to species and their conservation needs.**

The Way Forward

Key points from presentations and discussion

- We have an obligation (moral, ethical, religious) to look after our resources. We develop many strategies but we must implement and enforce them
- Building and maintaining political will is a challenge
- Government representatives are key to any process as they are the influencers, negotiators and policy makers. For example, governments control permits for extractive industries and research, and have the power to pursue those responsible for illegal logging or pollution.
- How can species research really impact policy? Data should be fed into CBD NBSAPs, and as more knowledge is generated, national plans can be amended. NBSAPs and other government priorities set the platform for governments to recognize the importance of biodiversity but we all need to work together to feed into these processes.
- Species data – population size, trends, habitat needs etc can feed into plans and help to advise governments on necessary actions to take. But we must also consider what governments can do with data and how they can decide on best actions to take?
- Species-based perspectives and knowledge need to be integral in policy and planning processes
- Where does the role of researcher end? Data can feed into site management plans, but where does the practitioner take over to communicate conclusions to policy makers and translate data into on the ground action?
- The involvement of the private sector in species conservation is also vital - private companies are involved in logging, mining, fishing, so can alter the impacts of these activities on species and local communities.
- Collaboration is the only way forward. The importance of working as a team – Together Everyone Achieves More – was repeatedly reinforced. All stakeholders must work together to implement the suggested actions coming out of the Forum and find solutions to the challenges
- The Pacific Islands Species Forum is a huge and much awaited step in species conservation in the region and we must all commit to keeping the momentum. We need to maintain connections among participants and represented initiatives.

Recommendations made by the PISF relating to the Way Forward

- **High level support for species conservation is required. Approach the Prime Minister of Solomon Islands and ask if he would be the Pacific regional champion for Species. Approach other regional PMs or high level politicians to champion other related issues such as Invasive species or Protected Areas and habitat conservation.**

- **Recommend that governments officially recognize and support successful strategies to protect species (for example community protected areas and education initiatives), and encourage their wider implementation and adaptation**

- **Develop a 5-year Pacific Islands Species Conservation Strategy to be tabled at the 9th Conference for Nature Conservation and Protected Areas planned for November 2013. This will call for another Pacific Islands Species Forum to be convened in 2014 and a smaller meeting of regional species experts during or before the Pacific Islands Roundtable for Nature Conservation (PIRT) Conference.**

- **Share these recommendations amongst government representatives in the Pacific, and take to regional meetings such as SPREP's Annual General Meeting.**

- **Commit to continuing to raise the profile of species in the region, through collaboration, exchange of information, submitting updated information to NBSAPs and the IUCN Red List and hosting of regional and national meetings.**

- **Establish a working group to begin planning for subsequent meetings, and explore the possibility of increasing overseas territory representation**

APPENDIX 1: Summary of Key Recommendations

"Pacific Islanders must make every effort to understand and value the various species of plants and animals and natural environments that make up our island homes…."

"Extra-ordinary action should be taken by decision makers to ensure species and native ecosystems are conserved and managed in a time of rapid development. It is time to sit with the Government, big developers, mining companies, agriculture, fisheries and logging interests in a national forum and discuss how we ensure big development will also result in big environment wins".

The call from the Pacific Islands Species Forum:

The Pacific Islands Species Forum urges immediate action to increase knowledge and understanding of species in the Pacific, their conservation status and threats to these species, and call for the provision of substantial support to assist Pacific Island Countries and Territories to achieve Aichi Target 12 and related targets.

- **Consolidate all existing data including grey literature into a regional database, inventories and checklists, to be accessible by communities, NGOs and governments.**

- **Commit to prioritization of species for further research and inclusion in the IUCN Red List, recognizing the especially huge gaps in our knowledge of plants, fungi and invertebrates, appreciating that other taxonomic and geographic gaps do exist and focusing on Data Deficient species**

- **Improve the coordination of species activities in the Pacific, in order to allow for stronger collaboration, reduction of duplication, and effective utilization of available resources. Identify national and regional experts and researchers working on similar country and regional level priorities and establish or re-invigorate necessary networks, list-serves and participation in IUCN's SSC Specialist Groups in order to coordinate species activities in the region.**

- **Request that regional organizations and governments assist with the facilitation of research and collection permits for researchers, where appropriate, in order to advance our scientific knowledge and share expertise**

- **Commit to developing a strategy to increase the capacity of students, graduates, social scientists, economists and ecological researchers in taxonomic skills and research capabilities in the region, and identify job opportunities to encourage the continuation of species research, conservation and protection. This should include a clear financing component.**

- **Ensure that all stakeholders are collaboratively engaged in species research and ecosystem conservation, including government representatives, politicians, community leaders, educators, conservation champions, private sector and the general public – this is a critical step towards addressing the many challenges that we face and ensuring that biodiversity targets relating to the future survival of species are met.**

- **Ensure that good and transparent governance underpins the engagement of all stakeholders, leading to improved policies, legislation, compliance and enforcement and ultimately the protection of species and their habitats.**

- **Recognize the true economic value and importance of species that we rely on for livelihoods: Link to education systems and school curricula in order to develop community- appropriate information and increase awareness and understanding of the importance and value of species, especially those that are less well-known.**

- **Explore innovative funding mechanisms such as crowd-funding, where internet-campaigns solicit funds for the conservation of species, or putting conditions on extractive industries that ensures they pay some sort of tax or fee to contribute to biodiversity conservation, or the setting up of trust accounts within governments or organizations.**

- **Document and communicate our success stories more effectively and more often– we need to become less shy with our work.**

- **Encourage the use of simple yet innovative communication technologies to ensure that conservation messages are relevant to local and national audiences, and that success stories can lead to replication and feed into policy across the Pacific.**

- **Mobilize and enable schools, community educators, national level networks such as the Locally Managed Marine Area network and youth groups, to ensure that local and cultural knowledge is incorporated with scientific knowledge relating to species and their conservation needs.**

- **Recommend that governments officially recognize and support successful strategies to protect species (for example community protected areas and education initiatives), and encourage their wider implementation and adaptation**

- **High level support for species conservation is required. Approach the Prime Minister of Solomon Islands and ask if he would be the Pacific regional champion for Species. Approach other regional PMs or high level politicians to champion other related issues such as Invasive species or Protected Areas and habitat conservation.**

- **Develop a 5-year Pacific Islands Species Conservation Strategy to be tabled at the 9th Conference for Nature Conservation and Protected Areas planned for November 2013. This will call for another Pacific Species Islands Species Forum to be convened in 2014 and a smaller meeting of regional species experts during or before the Pacific Islands Roundtable for Nature Conservation (PIRT) Conference.**

- **Share these recommendations amongst government representatives in the Pacific, and take to regional meetings such as SPREP's Annual General Meeting.**

- **Commit to continuing to raise the profile of species in the region, through collaboration, exchange of information, submitting updated information to NBSAPs and the IUCN Red List and hosting of regional and national meetings.**

- **Establish a working group to begin planning for subsequent meetings, and explore the possibility of increasing overseas territory representation**

- **Let's work together. Continue networking. Move to action. Look for funds. Collaborate. Protect and conserve our species.**

Appendix 2: Welcome Ceremony

9:00AM	MASTER OF CEREMONY: PI ROUND TABLE COORDINATOR, MR ETIKA RUPENI PRAYER
9:15AM	OFFICIAL OPENING: SOLOMON ISLANDS GOVERNMENT PRIME MINISTER OF THE SOLOMON ISLANDS THE HON. GORDON DARCY LILO
9:30AM	WELCOME: IUCN OCEANIA REGIONAL OFFICE DIRECTOR, MR TAHOLO KAMI
9:45AM	KEYNOTE SPEECH: THE IMPORTANCE OF SPECIES IN THE PACIFIC ISLANDS AND GLOBALLY CHAIR OF IUCN'S SPECIES SURVIVAL COMMISSION, MR SIMON STUART
10:00AM	PHOTO SESSION MORNING TEA

** Revert back to the Conference Programme **

Appendix 3: Remarks by Hon Prime Minister, Hon Gordon Darcy Lilo MP

Inaugural Pacific Islands Species Forum
Heritage Park Hotel, Honiara, Tuesday 24th April 2012

Theme: Celebrating Pacific Species –
Moving from science to conservation action by sharing lessons learned and setting future priorities.

[Salutation]
IUCN Oceania Regional Director
IUCN Species Survival Commission,
Representatives of Birdlife International,
Representatives of CROP agencies
Members of Pacific Islands Roundtable for Nature Conservation (PIRT),
Representatives of Pacific Islands Governments
Representatives of Non-Governmental Organizations
Senior Government Officials

Invited Guests
Ladies and Gentlemen,

Allow me at the outset to welcome you all to Solomon Islands for this Inaugural Pacific Islands Species Forum as we celebrate both marine and terrestrial unique species biodiversity in the Pacific Islands and their importance to pacific peoples and as well as their global value.

Given our recognition in the region as a critically important biodiversity hotspot and with many unique or endemic species that are not only important for a healthy environment but are critical for the livelihoods of our people and the worldwide recognition of our region, it is appropriate that the first Pacific Forum on species is held here in Honiara, Solomon Islands.

Biodiversity (our planet's diversity of living organisms and their natural homes) is essential for human life: insects pollinate our crops, fungi and worms produce soil nutrients, birds and bats disperse seeds, and certain plants and animals provide us with tangible products such as food, fuel, materials for construction and clothing. The interdependency of species within any given ecosystem makes biodiversity a vital indicator of the health of the planet: a decline in species diversity means that ecosystems, as well as human society, may be in trouble.

Our societies and culture are "species dependent" for food, traditional dress, medicine and inspiration. Often the abundance of species and our link to our beautiful environment as celebrated in our dances and our music.
The region's ecosystems are diverse, ranging from offshore marine realms, coral reefs and atolls, to mangroves, wetlands, coastal plains and grasslands, to lowland, dry and mountainous forests.

The Pacific Islands of Oceania are characterized by a high degree of ecosystem and species diversity. The region is characterized by thousands of isolated small coral atolls and higher volcanic islands, which has led to the high diversity of species found today. In fact, the number of plants and animals found nowhere else on earth (endemic species) is extremely high - often up to 90% for particular groups. Often, these rare and endemic species are adapted to specialized habitats and limited to small areas of a few islands.

Every day the Earth is losing species at up to 1,000 times the natural rate of extinction. This escalating extinction crisis that we are witnessing shows that the diversity of species and everything they offer to humanity cannot support the current pressure that we are placing on the planet.

As well as being irreversible, extinctions also pose a significant threat to human health, lifestyle and wellbeing. In the Pacific, economic and cultural dependence on the natural environment and resources (i.e. species), is very high. With a rapidly expanding human population, there are ever increasing demands on the region's natural resources, and threats to species are widespread.

Our plant and animal species underpin our Pacific way of life. Much of the food that ends up on our table is from the bounty of our nature. These resources are vitally important and sustain our communities. However, these species are vulnerable to over-exploitation, habitat loss and degradation, competition from introduced (invasive) species, extinction from climate change, and pollution.

In order to make informed decisions to deal with these challenges, a sound knowledge of species in our region and information on their conservation status and distribution is needed.

I am glad to learn that a growing number of national and international conventions and agreements concerned with conserving biodiversity, preserving wetlands and migratory species, and regulating trade in endangered species now exists.

Our Governments and decision-makers need reliable and quality information on the status of biodiversity, in order to work together to reaching targets set by these agreements, and ultimately halt the extinction crisis.

However, there are currently many gaps in the knowledge of species in Solomon Islands and the rest of the Pacific Islands Countries and Territories. At present, there is no regional resource documenting which species exist and/or are threatened in Solomon Islands or the Pacific Islands Countries and Territories. Even if this document exists, data is often dispersed, taxonomic expertise is absent, and nomenclature and classification systems often disputed for various species.

Ladies and gentlemen, this Forum is indeed a wakeup call for many of us as members of a region known for its biodiversity hotspots.

We need to work together to identify species and ecosystems under greatest threat; to carry out conservation planning and priority setting exercises; and raise awareness of threatened species throughout the Pacific islands. We need to collate our data and put in place links between our respective national policies and to the regional policies on these subject matters.

I am confident that through gathering of such data and collaborating with data providers and decision-makers, we will be able to monitor biodiversity, determine the success of conservation initiatives, and report to various Conventions (e.g. the Convention on Biodiversity), on trends in biodiversity.

As you are aware, Solomon Islands is home to many species of flora and fauna including some outstanding endemism in our bird and reptile biodiversity, besides the country's rich coral and plant diversity. These are sources of food, security and livelihood for more than 500,000 people that are scattered across our Island archipelago.

On the contrary, however we are seeing species loss as a direct result of economic development, growing population pressures and neglect on our part. Often, the path for development in the region has neglected to recognize the value of our environment and our unique ecosystems. Hence, in our consultations and dialogue regarding development agenda, we must explore means in ensuring that development is feasible to cater for the growing populations as well as to take action to minimize the impacts on our environment.

While we are beginning to see a resource boom in Melanesia it is important that we take measures to ensure that we generate an environment that is healthy for future generations. The Melanesia Spearhead Group has recently endorsed an Environment and Climate Change Declaration that recognizes our unique environment. It calls for actions that include a Melanesia Green Climate Fund, a Melanesia Terrestrial Commitment and a Melanesia Blue Carbon Initiative. The Declaration recognizes our urge to take extraordinary actions in these times of rapid development for conservation and management of our natural resources. It also demands us to take necessary steps as we endeavor to restore what we have lost.

In Solomon Islands, logging has been providing income for many people but has resulted in significant negative impacts on our island ecosystems and the livelihoods of our people.
Overharvesting of our coastal and marine resources has also been a continuing challenge.

My Government through the Ministry of Environment, Climate Change, Disaster Management and Meteorology – has developed the Ministerial Corporate Plan 2010-2012 and National Biodiversity Strategic Action Plan (NBSAP) 2009 as the Overarching Plan for protecting our biodiversity. Within the NBSAP, there are clear priority needs identified for Species Conservation. These Plans will be revised this year to cater for achieving Aichi targets especially Target 12 as articulated in the Strategic Plan of the Convention of Biological Diversity (CBD).

In recent years Solomon Islands Governments has joined and become a key player in other conservation initiatives like the Coral Triangle Initiative and the Program of Work on Protected Areas under the Convention of Biological Diversity. The Program of Work on Protected Areas in particular resulted in the development of Ridges to Reefs Plan 2010 and the Protected Areas Act 2010.

One of the objectives of this Act is 'to establish a system of protected areas or areas where special measures need to be taken to conserve biological diversity'.

There are also complementary projects initiated by government line ministries, partner NGOs and researchers which contribute immensely to species conservation and management.

I'm aware that a Solomon Islands Species Forum was held yesterday (24th April 2012) to take stock of species conservation work in the country. That meeting was intended to coincide with the regional initiative species forum but more importantly to consolidate my government's policies and programs on environment or for that matter species conservation and management.

In conclusion, I would like to see joint efforts to help us restore our forests and manage the inshore fisheries.

In that context, I congratulate the organizations in this room – members of the Pacific Islands Roundtable - and also the many researchers and scientists who have contributed to improving our knowledge on the richness of our Pacific species.

Ultimately for species to be conserved they must be appreciated and valued by our people, therefore we must ensure that we establish linkages to link your knowledge to our traditional knowledge so that decisions at the highest level are also supported by decisions by our communities to conserve and manage our species.

In wishing you every success in your deliberations, I trust that this Inaugural Pacific Species Forum will be the beginning of a movement that connects the efforts of conservation scientists to pacific communities and pacific island decision makers.

Thank you for your attention and God bless

Appendix 4: Pacific Islands Species Forum Agenda

Wednesday 25th April

Theme	Chair	Time	Title	Presenter
Opening Session	Etika Rupeni	8:00 - 9:00	Registration	IUCN ORO
		9:00 - 9:20	Official opening by the Solomon Islands government	tbc
		9:15 - 9:40	Welcome from IUCN Oceania including meeting objectives	Taholo Kami
		9:40 - 10:15	Keynote Speech on the importance of species in the Pacific Islands and globally	Simon Stuart
		10:15 - 10:45	Morning tea	
		10:45 - 11:00	Introduction to the Forum themes and structure	Helen Pippard
Knowledge and Research	Mark O'Brien	11:00 - 11:15	Themed talk: from science to action. Focus on knowledge	Marika Tuiwawa
		11:15 - 11:30	Rare plant studies in Western Polynesia	Art Whistler
		11:30 - 11:45	Plants of Solomon Islands	Myknee
		11:45 - 12:30	Q and A discussion	All
		12:30 -13:45	Lunch	
Knowledge and Research	Josef Hurutarau	13:45 - 14:00	Local dependence on the environment and conservation needs for Makira	Tammy Davies
		14:00 - 14:15	2012: the status of Solomon Islands terrestrial mammals	Tyrone Lavery
		14:15 - 14:30	Patterns of species diversification in the Solomon-Bismarck Island Archipelago: the conservation significance of adaptive radiation and community assembly in Melanesian forest frogs.	Rafe Brown
		14:30 - 14:45	Partulid Tree Snails in Papua New Guinea and the Solomon Islands: Endemic Species or Products of Prehistoric Exchange Networks?	Diarmaid O'Foighil
		14:45 - 15:00	Islands in the Sky: Science, symbolism, and the conservation impact of montane expeditions across tropical Pacific islands	Chris Filardi
		15:00 - 15:15	Awareness of dugongs and their status among fishermen in Solomon Islands	David Blair
		15:15 - 15:45	Q and A session	All
		15:45 - 16:00	Afternoon Tea	
Knowledge and Research	Stuart Chape	16:00 - 16:15	Red Listing in the Pacific islands: current status of knowledge	Helen Pippard
		16:15 - 16:30	A role for primary biodiversity data sharing networks in the Pacific	Jerry Cooper
		16:30 - 16:45	Phylogeography in the tropical Pacific: systematics, biogeography, and species limits in the Collared Kingfisher (*Todiramphus chloris*) complex	Rob Moyle
		16:45 - 17:00	Human and climate impacts on decline of Fiji's threatened freshwater fishes	Kinikoto Mailautoka
		17:00 - 17:15	Current knowledge and needs for the conservation of the iguanas (*Brachylophus*) in Fiji.	Rob Fisher
		17:15 - 17:30	Marine turtle post-nesting migration from flipper and satellite tagging results: for management units	Lui Bell
		17:30 - 18:00	Q and A discussion	All
		18:00	Recap and thoughts of the day	Simon Stuart
		18:30 onwards	Welcome Cocktail Mendana Hotel	Solomon Islands govt

Thursday 26th April

Theme	Chair	Time	Title	Presenter
Continuing Challenges	Marika Tuiwawa	8:30 - 8:45	Themed talk: from science to action - Challenges	Posa Skelton
		8:45 - 9:00	International Consortium for Biodiversity of Solomon Islands	Vicki Funk Chris Filardi
		9:00 - 9:15	Forgotten Species on the Frontline against Environmental and Global Change! – A Call for the Conservation of Coastal Littoral Forest - Our Most Threatened Island Ecosystem?	Teddy Fong
		9:15 - 9:30	Which species to save first? Conservation of the native and endemic flora of French Polynesia and proposals for species and habitat prioritization	Jean-Yves Meyer
		9:30 - 10:00	Q and A panel discussion	All
		10:00 - 10:30	Morning tea	
Continuing Challenges	Ana Tiraa	10:30 - 10:45	Extinction and rediscovery in Pacific Island mammals	Diana Fisher
		10:45 - 11:00	How did the dragonflies of the Pacific islands enter XXI century?	Milen Marinov
		11:00 - 11:15	Conservation of Fiji's Unique Land Snail Fauna: Is it an Achievable Goal?	Gilianne Brodie
Continuing Challenges - Threats		11:15 - 11:30	Invasive ants in the Solomon Islands: A Threat to Biodiversity	John Fasi
		11:30 - 11:45	Impacts of Invasive Alien Species on Threatened Species in the Pacific and the management of this threat	Shyama Pagad, Souad Boudjelas
		11:45 - 12:00	The state of seaweed invasion in the Pacific Island region	Posa Skelton
		12:00 - 12:15	Resolving an Enigma: Conservation Management of the Critically Endangered Fiji Petrel	Tuverea Tuamotu
		12:15 - 13:00	Q and A session	
		13:00 - 14:30	Lunch WALK AROUND POSTER DISPLAY	All
Continuing Challenges - Threats	Gilianne Brodie	14:30 - 14:45	How is habitat modification in Samoa affecting the Mao, an endangered honeyeater	Rebecca Stirnemann
		14:45 - 15:00	Logging, Mining and Biodiversity at the Crossroad: Case Study of Isabel and Choiseul Provinces, Solomon Islands	Willie Atu
		15:00 - 15:15	Beyond Peak PAs – successful conservation in the coming decades will need new models outside Protected Areas.	John Kuange
		15:15 - 15:30	Scales of coastal impact assessment: what does it mean for marine megafauna species in the Pacific region	Rachel Groom
		15:30 - 16:00	Q and A session	
		16:00 - 16:30	Afternoon Tea	
All themes	Bernie O'Callaghan	16:30 - 16:45	Introduction to breakout groups	Bernie O'Callaghan
		16:45 - 17:30	Breakout groups	
		17:30	Recap and thoughts for the day	Simon Stuart
		18:00 onwards	IUCN hosted cocktail at the Iron Bottom Sound	

Friday 27th April

Theme	Chair	Time	Title	Presenter
Celebrating Success	Posa Skelton	8:30 – 8:45	Themed talk: from science to action - Celebrating Success	Hugh Govan
		8:45 – 9:00	The Return of Forgotten Marine Pyramid Builders: A Taxonomic Assessment of Trophic Restructuring and Species Recovery after a Decade of Marine Conservation – A Case Study of Navakavu Vanua, Viti Levu, Fiji	Teddy Fong
		9:00 - 9:15	Regional Marine Species Action Plans	Lui Bell
		9:15 - 9:30	Tetepare Descendants' Association (TDA) Community based Marine Turtle Monitoring, Conservation, education and Awareness Program	Allan Bero and Jack Daniels
		9:30 - 9:45	Achieving success through community-based conservation – the Wan Smolbag Experience.	George Petro
		9:45 - 10:00	Progress with taxonomy of Fijian species	Fiona Tuiwawa
		10:00 - 10:30	Q and A session	All
		10:30 - 11:00	Morning tea	
The Way Forward	Etika Rupeni	11:00 - 11:15	Themed talk: from science to action - The way forward	Mark O'Brien
		11:15 - 11:30	Avian Prioritisation – how the Red-Listing process has provided a mechanism for identifying bird species most in need of conservation action in the Pacific.	Mark O'Brien
		11:30 - 11:45	Stopping megapode extinctions in Oceania – research from the Solomon Islands and Papua New Guinea can help save the threatened megapodes of Tonga and Vanuatu	Ross Sinclair
		11:45 - 12:00	Setting Conservation priorities in the Cook Islands	Ana Tiraa
		12:00 - 12:15	Good governance, customary unity, and a way forward for conserving the cloud forests of Kolombangara	Chris Filardi
		12:15 - 12:30	Terrestrial species prioritization in the Polynesia-Micronesia hotspot and CEPF investment	Leilani Duffy
		12:30 - 13:00	Q and A session	All
		13:00 - 14:30	Lunch	
			Progress by Fiji and Vanuatu on species conservation	
The Way Forward	Mark O'Brien	14:30 - 14:45	The way forward: The bigger picture - feeding into policies and action plans	Bernard O'Callaghan
		14:45 - 15:30	General Q and A session	All
		15:30 - 16:00	Finalization of recommendations in breakout groups	All
		16:00 - 16:30	Afternoon tea	
		16:30	Closing Session	

Appendix 5: ABSTRACTS

THEME: KNOWLEDGE AND RESEARCH

Presenter and Affiliation	Title and Abstract
Dr. Art Whistler University of Hawaii Botany Department	Rare Plant Studies in Western Polynesia Rare plant studies in western Polynesia were conducted starting in 2004 and extending into the present. These studies comprise separately funded projects in American Samoa (USFWS), Samoa (CEPF), Tonga (CEPF), and Tokelau (CEPF), with Niue (CEPF) scheduled for later this year. Based upon the published information, known collections, and the lead author's 40 years of field work in the area, a list of native and Polynesian-introduced plants that are "rare" or difficult to find in each of the island groups studied was prepared. This information was then uploaded onto three separate web sites created for the purpose. American Samoa's list included 109 species; Samoa's included 108; Tonga's included 97; and Tokelau's list (which was derived in a different way) included 20. A "species profile" was prepared for each of the selected species and included the following: scientific name, local names, range, habitat, description, citation of all known specimens, and photo(s). The inclusion of ancient Polynesian introductions along with the native species was deemed important because this rare list allows the people of the different island groups to know what cultural plants of theirs are threatened. This research is the first step towards redoing the Red List of rare plants of the area. Authors: Dr. Art Whistler and Dr. Michael Thomas, University of Hawaii Botany Department
Myknee Sirikolo, Department of Forestry, Solomon Islands	Plants of Solomon Islands
Tammy Davies, University of St Andrews	Local dependence on the environment and conservation needs for Makira People of the Kahua region of Makira are dependent on natural resources for subsistence. This dependence extends to a wide range of threatened species such as the Makira flying fox (*Pteropus cognatus)* (EN), Red-knobbed Imperial-pigeon (*Ducula rubricera)* (NT), and Data Deficient species such as the Coconut crab (*Birgus latro*) and the Prehensile tailed skink (*Corucia zebrata*). Makira has a dramatically increasing human population (2.8% p.a.), which coupled with a lack knowledge about sustainable use of resources or conservation is threatening the unique biodiversity and ultimately the environmental resources upon which the local people depend. While previously plentiful, recently rapid declines in resource availability have been reported, with significant ecological change occurring at landscape scales. I will present the preliminary results of my current research which is the first study to assess peoples dependence on the environment in the region. In light of the current rapid rate of change in the region this is essential in order to design appropriate conservation solutions that ensure continued food security alongside environmental sustainability. A sample of 76 households from the Kahua region of Makira are currently being monitored using a combination of participatory and quantitative survey techniques, to assess their wealth and their production, consumption and market sales of natural resources, especially with regard to threatened species. Authors: Tammy Davies [1,2]; Nathalie Pettorelli[2]; Ioan Fazey[1] [1]University of St Andrews, UK; [2]Institute of Zoology, UK
Tyrone Lavery, University of Queensland	2012: The status of Solomon Islands terrestrial mammals The Solomon Islands archipelago (including Bougainville) occupies a geographic position that has led to high diversity and endemism in the mammalian fauna. All native rodents, and over 75% of flying foxes are endemic to the islands. Study of the region's mammals has been largely concentrated in the period between 1880 and 1930, followed by several decades of inactivity. Recent re-invigoration of survey efforts and taxonomic reviews of existing museum collections indicate that more species remain to be described. Distributional maps for murid rodents and monkey-faced bats (genus *Pteralopex*) contain voids where it is highly likely that undescribed species occur. In the case of murid rodents at least, this presumption is supported by traditional knowledge and scientific evidence indicating undescribed species were, or are present. More detailed reviews of taxonomy have also highlighted that patterns of distribution in flying-foxes are much more intricate than previously thought. Several species exhibit mutually exclusive *checkerboard* patterns exclusive of distribution. Approximately 45% of known species are listed as *near threatened*, *vulnerable*, *endangered* or *critically endangered* under the IUCN redlist, with a further 19% listed as *data deficient*. Three species of rodent are currently recognized as *extinct*. The Solomon Islands are undergoing a period of rapid deforestation. Previous studies of altitudinal gradients in other archipelagos have demonstrated that

	the highest diversities of bats occur at lower elevations. This also appears to be the case in the Solomon Islands. Existing policy that restricts logging to below 400m altitude thus appears in direct contrast with actions required for conservation of flying foxes. The loss of primary forest and hollow bearing trees is of great concern for *Solomys* and *Pteralopex* species. In fact, local extirpation of *Pteralopex* species is already evident as a result of logging. Increased survey effort and support for local communities wishing to conserve tribal lands are two of the most important initiatives for conservation in the Solomon Islands. Authors: Tyrone Lavery[1] & Diana Fisher[2] 1. School of Agriculture & Food Sciences, University of Queensland 2. School of Biological Sciences, University of Queensland
Rafe Brown, University of Kansas	Patterns of species diversification in the Solomon-Bismarck Island Archipelago: the conservation significance of adaptive radiation and community assembly in Melanesian forest frogs. The Solomon-Bismarck archipelago is home to an impressive radiation of endemic frogs of the family Ceratobatrachidae. Related to an equally impressive array of species from the Philippines, eastern Indonesia, and Papua New Guinea, the Solomon-Bismarck archipelago species have evolved by unique processes and assembled into complex communities in ways not seen in other parts of the distribution of this family. I will present an analysis of the evolutionary radiation of this group, based on extensive DNA sequence data collected from throughout the Solomons and I will discuss the evolutionary relationships and biogeography of these unique island vertebrates. I will also present a phylogeny-based analysis of community assembly to test the prediction that diverse Solomon frog communities are derived almost exclusively from evolutionary processes of diversification within the archipelago. Results of this analysis provides evidence for a striking combination of processes, with some Solomon Islands frog communities arising exclusively from ecological assembly (phylogenetic overdispersion) and others derived almost entirely from speciation within the archipelago (phylogenetically clustered). Because many communities are the result of a combination of processes that interact in novel ways, dictated by history of the lineages involved, the idiosyncrasies of individual taxa and the geography of the islands uniquely contribute to diversification in this remarkable group. Finally, with this new information on the distribution and taxonomic diversity of Solomon Islands species, I will discuss conservation priorities, threats, and remaining unanswered taxonomic questions that are posed by the endemic forest frogs of the Solomon Island Archipelago. Author: Rafe M. Brown, University of Kansas Biodiversity Institute
Diarmaid O'Foighil, The University of Michigan	Partulid Tree Snails in Papua New Guinea and the Solomon Islands: Endemic Species or Products of Prehistoric Exchange Networks? The endangered tree snail family Partulidae is endemic to Pacific oceanic islands. Members typically have single island ranges, but partulids of the island archipelagos of Papua New Guinea (PNG) deviate markedly from familial norms. They have extraordinary multi-archipelago ranges and their association with coastal villages strongly implicate prehistoric human introduction as the regional dispersal mechanism. Prehistoric exchange networks involving partulid snails can be reconstructed by identifying the source island/archipelago using DNA analyses. By far the most likely source populations occur in the Solomon Islands, home to eight nominal endemic species of *Partula*that have not been studied for many decades and are very difficult to distinguish from each other. I recently examined the extensive Bishop Museum (Honolulu) holdings of Solomon's partulids collected bypartulid expert Yoshio Kondo in the 1960's. Kondo identified almost all of the tree snails he encountered throughout the Solomons as *Partulamicans*, a species that he found around coastal villages and that (in an unpublished manuscript) he proposed synonymizing with all but two of the eight nominal Solomons species and with one PNG species. Kondo's unpublished observations raise the possibility that a large fraction of partulid populations throughout PNG and the Solomon Islands may be products of human introductions. If verified with molecular data, this would have important implications for setting regional partulid conservation priorities and for inferring prehistoric exchange networks across Near Oceania. Author: Diarmaid Ó Foighil, Museum of Zoology, The University of Michigan
Chris Filardi, American Museum of Natural History	Islands in the Sky: Science, symbolism, and the conservation impact of montane expeditions across tropical Pacific islands Pacific island arcs comprise natural laboratories that have inspired some of the most seminal scientific theory of our time. Much of the species data underlying this theory were gathered nearly a century ago on world-renowned expeditions to the region. Despite the scientific and social impact of early expeditions, numerous upland areas have never been rigorously sampled. At the same time, as lowland areas have been degraded by poorly regulated resource extraction, montane areas are under

	increasing threat from direct and indirect impacts of timber extraction and recent upsurge in mining activity. Montane and cloud forestareas are characterized by high species endemism and are also primary elements of the customary lands of myriad island peoples, the original custodians ofthe richness of Pacific island biodiversity. On high islands, where customary landholders largely retain subsistence, economic, and spiritual reliance upon biodiversity, both ecological process and human well-being require intact upland forests and altitudinal gradients. Contemporary biodiversity expeditions focused on montane endemism can provide scientific, practical, and symbolic opportunity to improve regional conservation efforts for currently under-studied and threatened high-elevation ecosystems. This presentation describes collaborative plans by the Solomon Islands Government and American Museum of Natural History to survey one of these islands in the sky as a means to advance biodiversity science and conservation. By combining landholder engagement, scientific training, and public outreach with a world-class montane expedition, this collaboration is designed to revive the potency of basic natural history to improve conservation prospects across southwest Pacific islands. Authors: Christopher E. Filardi, American Museum of Natural History, New York, USA and Tia Masolo, Solomon Islands Ministry of Environment, Climate Change, Disaster Management and Meteorology, Honiara, Solomon Islands
David Blair, James Cook University	Awareness of dugongs and their status among fishermen in Solomon Islands Interviews of fishers in several Provinces of Solomon Islands were used to assess awareness of dugongs, and to elicit perceptions of the status of the species. Results of this survey will be presented and integrated where possible with previous information. All those interviewed had seen dugongs and were aware of some aspects of dugong biology. Dugongs occur in many localities in Solomon Islands, but nowhere in large numbers. Although widely regarded as good to eat, targeted hunting for dugongs seems rather uncommon, especially on Isabel. Accidental captures do happen, and animals are retained for food. Perceptions of trends in abundance varied. Those interviewed on Guadalcanal were mixed in their opinions, but most thought that dugong numbers were decreasing. On Isabel, most considered that numbers were increasing and gave as the reason that dugongs were not hunted there. Authors: David Blair, James Cook University, and Tia Masolo, Solomon Islands Ministry of Environment, Climate Change, Disaster Management and Meteorology, Honiara, Solomon Islands
Helen Pippard, IUCN Oceania	Red Listing in the Pacific islands: current status of knowledge Given the high economic and cultural dependence on species in Oceania, as well as a rapidly expanding human population, many species populations are in decline and may be vulnerable to extinction from a number of local and regional threats. IUCN Red List assessments, a widely used system for quantifying threats to species and assessing species extinction risk, have been completed for 4907 species in the Pacific Islands. However, this is only approximately 12% of the total number of species estimated to occur in the region. Many of the species in these groups are threatened by the modification or destruction of habitats, invasive species, over-exploitation, pollution, and other ecological or environmental changes associated with climate change. Although increased knowledge and use of newly available IUCN Red List assessments for species in the Pacific Islands can greatly improve conservation priorities for species in the region, many important groups are still in urgent need of assessment. Prioritization for further species research is urgently required. Author: Helen PIppard, IUCN Oceania
Jerry Cooper, Landcare Research	A role for primary biodiversity data sharing networks in the Pacific Primary biodiversity data (what, where, when) is the evidence base to support conservation and biosecurity assessment, reporting and management. In this presentation I will discuss why we need such data, and what we already know about primary biodiversity data in the Pacific. I will cover the roles of emerging global data sharing networks such as the Global Biodiversity Information Facility (GBIF) and the Catalogue of Life (CoL), how these networks have relevance to the Pacific Islands, and how regional engagement might be initiated. Author: Dr Jerry Cooper, Landcare Research, New Zealand
Rob Moyle, University of Kansas	Phylogeography in the tropical Pacific: systematics, biogeography, and species limits in the Collared Kingfisher (*Todiramphus chloris*) complex A conspicuous element of island bird faunas, especially in the tropical Pacific, is the abundance of widespread 'polytypic' species. One such example is the Collared Kingfisher *Todiramphus chloris*, which comprises ~50 subspecies spanning the Indo-Pacific, including populations as far west as the Red Sea. We will present a molecular phylogeny of this polytypic species complex based on a multilocus dataset including complete DNA sequences of two mitochondrial coding genes and four

	nuclear noncoding introns totaling >3,500 bp. Phylogenetic analysis produced a well-resolved phylogeny of ~140 *Todiramphus* samples from across Australasia and the Pacific, including broad outgroup sampling. The results revealed several important aspects of the evolutionary history of *Todiramphus chloris*, including non-monophyly of the species. Not surprisingly, the evolutionary history of *T. chloris* is complex and comprises multiple, well-differentiated lineages with several species-level taxa nested within the broader group. We will also compare these results to patterns observed in other widespread Pacific groups such as whistlers, white-eyes, and monarch flycatchers. Authors: Robert G. Moyle and Michael J. Andersen, Biodiversity Institute, University of Kansas. Christopher E. Filardi, American Museum of Natural History.
Kinikoto Mailautoka, Wildlife Conservation Society	Human and climate impacts on decline of Fiji's threatened freshwater fishes Freshwater fish species have been declining in terms of diversity and abundance in river systems around Fiji. We undertook surveys of freshwater fish species richness and abundance between 2006 and 2010 to investigate the main factors associated with this decline. Our initial investigations of 20 catchments in Fiji indicated that loss of catchment forest cover and presence of non-native tilapias were the strongest factors associated with loss of native fish species. The negative effects of catchment land clearing appear to be more pronounced in degraded catchments during the wet season. By contrast, increasing water level and flow during the wet season in near-pristine catchments provided good habitable space for fishes. Most recent surveys in Oct 2010 investigated the extent to which catchment land cover, water quality and riparian width impact freshwater fish communities in four districts in Vanua Levu. We found that the presence of overhanging culverts proved to be a major barrier for fish migration. There was low numerical abundance of fish and few fish species in areas of intact habitat where culverts were present downstream. The most critically threatened species were most vulnerable to development that either destroys their habitat or obstructs their migratory path. Community-based adaptive management (CBAM) initiatives that focus on protecting rivers and their associated catchments can conserve these threatened species. We present a case study of successful CBAM implementation, but also highlight problems associated when short-term protection is lifted. Authors: Kini Koto and Stacy Jupiter (Wildlife Conservation Society) and Aaron Jenkins (IUCN Freshwater Fish Specialist Group).
Robert Fisher, US Geological Survey	Current knowledge and needs for the conservation of the iguanas (*Brachylophus*) in Fiji. Currently three endemic species of *Brachylophus*iguanas are described from Fiji. These have been listed under CITES, the US Endangered Species Act, and IUCN Red List for a very long time. Additionally one invasive iguana species (*Iguana iguana*) has become a threat in northern Fiji, on islands occupied by native iguanas. For much of the last decade conservation actions have focused on only one of these three species (*vitiensis*), and the other two species remained poorly known. Field research over the last two years has greatly increased our knowledge base for these other two species and now conservation priorities can be discussed. This research has also shown that additional undescribed species of iguanas still persist in Fiji and their descriptions are now a priority so that they are properly recognized and conserved. Additionally significant new gaps in knowledge of the distribution of all of these iguanas have been identified and are targeted for future studies. This program is a model of how an international governmental collaboration, with an in country NGO has made great knowledge strides over a relatively short period of time, with limited resources. Authors: Robert Fisher, US Geological Survey; Peter Harlow, Taronga Conservation Society Australia; Jone Niukula, The National Trust of the Fiji Islands; Nunia Thomas, NatureFiji-MareqetiViti
Lui Bell, SPREP	Marine turtle post-nesting migration from flipper and satellite tagging results: for management units Green turtle post-nesting migration generated from flipper tag recaptures and satellite tag movement maps show potential sub-regional green turtle population management units. Although marine turtles migration data confirms that they migrate through-out the region, and that turtles nesting in a particular country/territory forage in more than one other country/territory, there are strong patterns linking certain nesting areas and foraging grounds. These patterns or links can be used to establish sub-regional management units. Marine turtle flipper tag recaptures and migration maps from satellite tagging show that green turtles that nest in the western Pacific Islands, forage mainly in Asia; those nesting in the central Pacific, forage mainly within the central area; and those nesting in East Pacific Islands, forage mainly Fiji. Authors: Lui AJ Bell, Marine Species Adviser, Catherine Siota, Turtle Database Officer and Paul Anderson, Marine Conservation Analyst, SPREP

Presenter and Affiliation	Title and Abstract
Dr. Vicki A. Funk Department of Botany, Smithsonian Institution and University of Hawaii, Manoa; Chris Filardi, American Museum of Natural History	International Consortium for Biodiversity of Solomon Islands Dominating the East Melanesian Islands Biodiversity Hotspot, the nearly 1,000 islands of the Solomon Archipelago hold an exceptional number of endemic species including many single-island endemics. Nearly all of this diversity occurs on customary land where local communities depend on biodiversity as the basis for ecological and economic security. Vascular plants are particularly important to customary landholders and with estimated 4,000+ species in the Solomon flora, nearly 50% of which are thought to be endemic, there is great ethnobotanical richness paralleling patterns of endemism. Despite this richness, the flora is not well documented, and accelerating levels of habitat loss, caused chiefly by poorly regulated timber, mining, and agricultural practices, increasingly threatens numerous species of conservation concern. Driven by this conservation need, a new international consortium is being formed to help address biodiversity and ethnobotanical threats in the Solomon Islands (SI). The Consortium includes prominent biodiversity research organizations from the USA and Pacific Islands and has identified four primary goals: 1) promote development of SI scientific capacity through high-quality training, international exchange, infrastructure development, and creation of long-term SI job opportunities for top SI scientists; 2) foster conservation of SI biological and enthnobiological diversity in partnership with local scientists and community leadership through science, awareness, and education; 3) enhance the SI "biodiversity economy" by improving science-based biodiversity stewardship; and 4) encourage long-term research through partnerships among multi-national institutions that benefit SI interests and citizens. This presentation will summarize exemplary objectives to gauge SI interest, identify potential local partners, and to solicit in-country guidance. Authors: Chipper Wichman[1], David Lorence[1], Professor Sir Ghillean Prance[1], Natalia Tangalin[1], Christopher Filardi[2], Michael Esbach[2] , Will McClatchey[3], David Reedy[3], Warren Wagner[4], Marc Appelhans[4] Bill Aalbersberg[5], Randolph Thaman[5], Myknee Sirikolo[5], Marika Tuiwawa[5] [1] National Tropical Botanical Garden, USA [2] American Museum of Natural History, USA [3] Botanical Research Institute of Texas, USA [4] National Museum of Natural History, USA [5]University of South Pacific, FIJI
Teddy Fong, Econesian Society and University of the South Pacific	Forgotten Species on the Frontline against Environmental and Global Change! – A Call for the Conservation of Coastal Littoral Forest - Our Most Threatened Island Ecosystem? This paper calls for the prioritization of the conservation and restoration of coastal littoral forests, which are among the most culturally and ecologically important and highly threatened ecosystems in the Pacific Islands. Although clearly on the frontline against climate change, extreme events and habitat and biodiversity loss, coastal littoral forests and their resident species have fallen into the gaps between most formal conservation initiatives. This paper examines the clearly endangered status of these forgotten frontline warriors that are being lost to urban, industrial and agricultural expansion, overexploitation and invasive species; and their cultural and ecological importance to coastal and small island communities as their first line of defense against environmental and economic change. It suggests that their conservation and restoration be made integral components of all NBSAPs and emerging models of ridge-to-reef and ecosystem-based management in the face of rapidly increasing populations and environmental and economic change; and provides examples of successful restoration of coastal littoral forests in Tonga. It is also argued that greater priority be placed on the conservation of threatened local populations of culturally and ecologically important, non-endemic, plants and animals in "biodiversity cool spots", such as coastal areas and atolls, because these species are clearly on the frontline against climate and environmental change and increasing poverty; and that a "blue-green" list of threatened ecologically and culturally important species be developed to complement the IUCN Red List Author: Randy Thaman (Professor of Pacific Islands Biogeography, USP, Suva)
Jean-Yves Meyer, Délégation à la recherche, Government of French Polynesia	Which species to save first? Conservation of the native and endemic flora of French Polynesia and proposals for species and habitat prioritization Pacific islands are facing a crucial dilemma. They harbour a rich and unique biota which is highly threatened by increasing human pressures and disturbances, but they often have very limited financial resources and lack the human capacity required to effective and efficient conservation programs. Therefore, prioritization of critical species and habitats for conservation appears to be a necessity. With about 880 native vascular plants including more than 550 endemics, the flora of French Polynesia is one of the richest in the Pacific. It is also one of the most threatened with 47 species listed in IUCN Red Lists. A total of 167 plants are legally declared protected in French Polynesia, but only a few of them (16) are

	currently targeted of conservation efforts. To be more effective at a regional scale, we proposed that plant taxa and lineages with high taxonomic value (e.g. endemic genera) should be given priority as they constitute irreplaceable taxa in the Pacific. We argued that the protection of native habitats and ecosystems of high conservation value should be strengthened or promoted as they are more cost-effective than single species recovery programs. In collaboration with local NGOs, we have recently initiated *in situ* restoration programs by fencing small patches of native forest remnants and removing invasive plants. The successful release of a host-specific fungal pathogen in Tahiti to contain the invasive tree *Miconia calvescens* in montane rainforest has increased the recruitment of native plants, demonstrating that biocontrol may be also used as a habitat restoration tool. Author: Jean-Yves Meyer, Délégation à la recherche, Government of French Polynesia
Diana Fisher, University of Queensland	Extinction and rediscovery in Pacific Island mammals Extinction is difficult to detect, and there is a high turnover of species in the 'extinct' and 'critically endangered- tagged as possibly extinct' Red List categories in mammals. We used global data on rediscovery rates of mammals suspected to be extinct to test whether extinction from different causes is equally detectable. We also looked for species characteristics that might be correlated with the probability of rediscovery vs remaining missing. We identified 67 rediscovered mammals, and 120 species that remain missing / extinct, including several Pacific island species. Globally, species affected by habitat loss were much more likely to be rediscovered than those affected by introduced predators and disease, or overharvesting, unless they had very restricted distributions (e.g. small islands). We concluded that extinctions owing to habitat loss have likely been overestimated, relative to impacts of introduced species. We used data on rediscovery locations to test explanations for trajectories of species decline. Species subject to habitat loss were also more likely to be rediscovered at the periphery than the centre of their former ranges, often in suboptimal habitat. We also found that smaller species such as rodents attracted less search effort and less conservation effort after rediscovery, and were consequently more likely to continue to decline rather than to recover. Sixty percent of rediscovered mammals remain critically endangered or endangered, and 8% (6 species) are likely to now be extinct. We will discuss the implications of these findings for prospects of rediscovery and conservation actions for missing / extinct Pacific Island species, and prioritizing searches for these. Authors: Diana Fisher and Simon Blomberg, University of Queensland
Milen Marinov, University of Canterbury	How did the dragonflies of the Pacific islands enter XXI century? Dragonfly (Odonata) fauna of the Pacific islands is revised based on a largely updated list of publications on the study area outlined in Marinov & Doscher (2011). The initial database of the region is extended to 9,433 records. A total of 219 taxa are included at the moment. The new analysis is supportive of the conclusion that the Pacific Odonata are largely inconsistently studied (Marinov 2011) and poorly known (Marinov & Doscher 2011). The taxonomy is the main challenge encountered by everyone working with this diverse and large region. The discrepancies are established in species/subspecies names used by the previous investigators. Those were due to incongruence with the earlier revisions, insufficient morphological investigations and almost complete lack of molecular analyses. At the brink of the new millennia there is still a huge gap between Odonata studies over the Pacific compared to their counterparts from the rest of the world. Dragonflies could tell exciting stories about the evolution of the Pacific islands. A preliminary biogeographic analysis at family level reveals very interesting distribution patterns. This research must go to genus level and be combined with phylogenetic studies. They are required to clear some issues on dragonfly taxonomy necessary for implementing the ultimate goals in Odonata species conservation. Some preliminary actions (like GIS based habitat modelling) are presented here with short discussion on their advantages and drawbacks. The Pacific region is notorious with its high level of endemism, which should be a warning message for every conservation organisation working within the area. Author: Milen Marinov, University of Canterbury, New Zealand
Gilianne Brodie, University of the South Pacific	Conservation of Fiji's Unique Land Snail Fauna: Is it an Achievable Goal? The land snail fauna of the Fiji Islands is rich and highly diverse, consisting of at least 245 species that cover 28 families and 72 genera. Of these 245 species, 216 are native (indigenous) and 167 of those are endemic. Exactly how many of these endemic species are threatened or in need of some form of conservation action is debatable however, what is certain is that without increased effort towards strengthening information supply to local communities and government departments, a significant amount of this unique fauna will soon be lost forever. We have begun the huge task of better documenting Fiji's land snail fauna and strengthening access to available information on the native, endemic and introduced land snail species present. Baseline data is critical to monitor and manage potential endemic species loss. We have now conducted snail surveys in several locations and

	established some preliminary conservation priorities related to both native and introduced snail species. However, moving forward to achieve successful conservation outcomes, even in partnership with local land owners and other stakeholders, is still very challenging and in some cases perhaps either already too late or realistically unachievable. Author: Gilianne Brodie, University of the South Pacific
John Fasi, Solomon Islands College of Higher Education	Invasive ants in the Solomon Islands: A Threat to Biodiversity Invasive ant species pose a challenge for the conservation of a unique island biota. The vulnerability of Pacific Islands to the invasion of some of some of the worst exotic ants is a concern to efforts of conservation of biodiversity. Here we present the following, (i) the current list of invasive ants in the Solomon Islands by searching archival records, (ii) the impact of the invasive ant, little fire ant *Wasmannia auropunctata* on the on other ant species within garden sites in Solomon Islands by use of baiting and hand collecting method and (iii) the impact of *W. auropunctata* on domesticated vertebrates, particularly, cats, dogs and birds from information collected from villages. Our result showed 19 invasive ant species in the Solomon Islands. Secondly, *W. auropunctata* is responsible for the decline of other ant species and thirdly, *W. auropunctata* is inflicting eye problem for a number of domesticated animals. Given the impact of *W. auropunctata* on other ant species and domestic animals, we propose that failure to take measures to address issues of invasive ant species would counter efforts of conserving out unique biota Author: John Fasi, School of Education. Solomon Islands College of Higher Education
Shyama Pagad and Souad Boudjelas, University of Auckland	Impacts of Invasive Alien Species on Threatened Species in the Pacific and the management of this threat Biological Invasions are recognized as a key driver of biodiversity loss worldwide. This threat is more acute on islands many of which are biodiversity hotpots. 95% of bird extinctions, 90% of reptiles, 69% of mammals and 68% of plants are known to have occurred on islands and most of these were caused by the impacts of invasive alien species (IAS). Native species of Pacific Island Countries and Territories (PICTS) have been severely endangered by the impacts of IAS. The two classic cases are the impacts caused by the introduction of the brown tree snake to Guam and the rosy wolf -snail to French Polynesia. Predation by the brown tree snake inflicted severe impacts on 22 species of native birds including several extinctions; extinction of six out of the ten to 12 lizard species and the disappearance of two of the three bat species. The predatory rosy wolf-snail has caused the extinction of 57 of 61 species of endemic partulids (snails) in French Polynesia. We present the results of an assessment of the extent of the impact of IAS on threatened species (IUCN Red List Critically Endangered (CR), Endangered (EN) and Vulnerable (VU)) in PICTS and, a review of invasive species management action in the Pacific region related to the conservation of native bird species over the past decade. Authors; Pagad, S[1]; Boudjelas[2], B; Tan, N[1]; Hughes, B[2] 1 University of Auckland/ IUCN SSC Invasive Species Specialist Group 2 Pacific Invasives Initiative / University of Auckland
Posa Skelton, SPREP	The state of seaweed invasion in the Pacific Island region Macro-algae or seaweeds have caused ecological and economic damage to places where they have been introduced. The introductions may be deliberate (aquaculture, aquarium) or accidental (hull-fouling, ballast water). Ecological damages include weakening of natural shoreline protection (coral reefs), displacement of native species and nuisance to fishers, communities living adjacent the coast and tourists. In this presentation we discuss the state of seaweed invasion in the Pacific, focusing on seaweed invasive characteristics, the pathways for invasion, some examples of their impacts and explore ways to manage them. Authors: Posa A. Skelton, PILN Coordinator, SPREP Jono Blodgett, DLNR-Division of Aquatic Resources, Honolulu, Hawaii G. Robin South, University of the South Pacific, Alafua Campus, Samoa
Tuverea Tuamotu, NatureFiji- MareqetiViti	Resolving an Enigma: Conservation Management of the Critically Endangered Fiji Petrel (*Pseudobulweria macgilliravyi)* Believed to breed only on Gau Island in Fiji, the Critically Endangered Fiji Petrel's *Pseudobulweria macgilliravyi* nesting grounds have yet to be to be found. However recent landings in 2007, 2009 and two in 2011, together with 'at sea' views in 2009 are slowly increasing our knowledge of this elusive bird. With known potential threats such as clearance for agriculture, invasive species (cats, rats and recently feral pigs) and the uncertainty of its breeding cycle, conservation of this species remains a challenge and will rely on protecting nesting sites once they have been found. The purpose of this project is to find the nesting sites and currently this is being undertaken by using New Zealand-trained search dogs. While the search continues, it is complemented by ongoing awareness with Gau communities, using Collared

	Petrel *Pterodroma brevipes* as hands on conservation management surrogate to train local expertise for future work when nesting burrows of Fiji Petrels are located.. Authors: Eleazar O'Connor, Dick Watling, NatureFiji-MareqetiViti
Rebecca Stirnemann, Massey University	How is habitat modification in Samoa affecting the Mao, an endangered honeyeater Habitat modification is widely regarded as a major factor contributing to widespread decline in many bird populations. However, the relative importance of these factors on recruitment has not previously been evaluated in the Pacific. Pacific island birds are likely to respond differently to birds on the main land given their different life history characteristics. We investigated life history traits, productivity and nest site selection at different landscape scales in the Mao (*Gymnomyza samoensis*), an endangered Samoan honeyeater threatened by land-use changes.We aimed to clarify which factors affect the reproductive productivity and the sensitivity of Mao to habitat change by: 1) monitoring known breeding pairs and 2) the depredation of artificial nests. We monitored Mao (n=12) breeding success within both plantation and forest sites. At forest sites, 37.5 percent (n=8) successfully fledged a single chick. In contrast the Mao pairs (n=4) at plantation sites did not successfully fledge any chicks (Fisher exact test, *P*=0.50). Secondly, we monitored the fate of artificial Mao nests (n=144) in plantation and primary forest habitats. We assessed the effects of territory selection at two different scales: (1) the position of the territory within the landscape, and (2) the microhabitat positioning of the nest. We found that landscape scale factors had more of an effect on nest depredation rates than macro habitat factors measured at the nest site. Correspondingly, conservation actions that limit habitat modification and in turn predation at the landscape scale should have the greatest impact on the reproductive success in the Mao and island birds with similar life history traits. Authors: R.L.Stirnemann, D. Butler, M.A.Potter and E.O.Minot Ecology Group. INR, Massey University, New Zealand
Wille Atu, The Nature Conservancy	Logging, Mining and Biodiversity at the Crossroad: Case Study of Isabel and Choiseul Provinces, Solomon Islands Traditionally, people's daily activities and their land are inseparable. Their knowledge about their forests, natural phenomenon such as the shedding of the leaves of trees, phases of the moon and stars, important landmarks as caves, rivers, rocks, harbors, reefs and fish are regarded as a source of spiritual blessings (mana). Rights to tribal land are transferred through special arrangements such as compensation, marriage, warfare or gifts. The right of an individual to use land depends on the ownership of the tribe of which he/she descended from. Land is an ancestral trust committed by the dead to the living for the benefits of the current generations and the unborn. More than 80% of the land in Solomon Islands is tribally owned and as such acquiring land for economic purposes and infrastructure developments can be very time consuming and hindrances for development. In the wake of the dawn of cash economy (logging and mining) land disputes among tribes and communities and possible loss of endemism have become a number one problem in many rural communities and natural resources of the country. At this backdrop The Nature Conservancy (TNC) has been working in Isabel and Choiseul Provinces with Lauru Land Conference of Tribal Community (LLCTC), Choiseul Provincial Government, the Isabel Council of chiefs (ICC) and Isabel Provincial Government in mapping out areas of both biological and cultural significance and the threats as a tool to be used by decision makers and corporations to maintain biodiversity by steering the impacts away and to determine suitable mitigation responses. As these 2 islands are closer to mainland New Guinea, they have some endemic species that are unique only to these islands and the rest of the world. Simultaneously, Isabel and Choiseul are 2 of the most logged islands in the country and nickel mining is due to start in the next few years. The need for proper conservation planning is crucially imperative than ever. Author: Willie Atu The Nature Conservancy, Honiara, Solomon Islands
John Kuange, Wildlife Conservation Society	Beyond Peak PAs – successful conservation in the coming decades will need new models outside Protected Areas. Many indicators that suggest a deteriorating environment for conservation are increasing: human population, atmospheric CO_2, forest loss and the number of threatened species. Concurrently, one indicator of opportunities for conservation is declining: the number and area of new Protected Areas (PAs). We reached Peak PA establishment in the mid-1990s and have been declining ever since. If the threats to nature are increasing while the area available for PAs declines, we will need to look beyond the traditional 'PA approach' if we are to achieve conservation in the coming decades. Papua New Guinea (PNG) provides an opportunity to test such new approaches because almost all land there is in customary ownership that precludes the establishment of large PAs in the traditional sense: the largest National Park in PNG is less than 5000 ha. In PNG, a series of new challenges replaces the ones we have grappled with in the past: Instead of improving park management by government agencies we must

	strengthen community institutions for resource management; instead of reducing poaching in PAs we must convince landowners not to hunt in some places or some species; instead of designing PAs based on biological scale we must design them based on appropriate social scale; and instead of keeping people out of parks we must work with the people in them who own them. If we are successful in solving these challenges in PNG, one of the world's least developed nations may show the way forward for conservation in the era beyond Peak PAs. Authors: Ross Sinclair and John Kuange, Wildlife Conservation Society - Papua New Guinea Program
Rachel Groom, James Cook University/GHD Pty Ltd	Scales of coastal impact assessment: what does it mean for marine megafauna species in the Pacific region Migratory and threatened marine mammals and reptiles are awarded protection within a variety of international agreements for much of the Pacific region. These agreements are acknowledged within most national environmental legislation. However, the interpretation of species management and their appropriate assessment in the context of coastal development can be unclear, and often confounded by extensive ecological scales utilised by species and the scales of impact. Coastal regions in northern Australia have been experiencing significant growth over the past 30 years. Similarly, many other resource rich countries in the Pacific are now realising the potential for comparable large-scale developments. To meet coastal export demands ports on Australia's northern coast have recently undergone rapid expansion and development. Construction of onshore and offshore port and gas plants to facilitate this expansion is changing the coastal region, and significantly altering important habitats of marine migratory and threatened mammals and reptiles. Environmental impact assessments have only recently called for proposed projects to assess impacts at a regional or higher geographical scale in Australia. Impacts from concurrent northern Australian developments on the habitat and potential for long-term survival of critically endangered species, are only now being examined in the context of environmental approvals for individual projects. Opportunity exists to interpret data collected through recent baseline assessments, to benchmark the current state of marine megafauna populations in Queensland coastal waters and to provide information on habitat utilisation patterns. This current state of knowledge is discussed and used to provide a context for regional assessment of concurrent coastal development impacts on these populations. This snap shot of development and threatened species management in Queensland may heed a warning to other Pacific countries regarding their management and research priorities for coastal species where future development is a possibility. Author: Rachel Groom, James Cook University/GHD Pty Ltd

Celebrating Success

Teddy Fong Econesian Society and the University of the South Pacific	The Return of Forgotten Marine Pyramid Builders: A Taxonomic Assessment of Trophic Restructuring and Species Recovery after a Decade of Marine Conservation – A Case Study of Navakavu Vanua, Viti Levu, Fiji The collapse of marine ecosystems and trophic pyramids constitute one of the most serious environmental crises of our times. For small islands with limited land and water resources, increasing populations, limited urban-industrial development opportunities, and a disproportionate dependence on fishing for livelihood security, the crisis is more threatening. Small islands, however, offer great opportunities to manage and restore marine ecosystems. The paper presents results of an assessment of changes in species composition and trophic structure that have occurred over the past 50 years within a historically overfished area in Fiji. The findings are based on a comparison of time-depth testimonies of the most knowledgeable older fishers with results from more recent scientific surveys in an effort to correlate observed changes with factors such as intense overfishing, increasing pollution, a 1953 tsunami, climate change and a decade of marine conservation. Analyses of over 600 taxa indicate that successful reduction of unsustainable fishing practices such as the use of fish poisons, dynamite fishing, small-mesh gillnetting and the establishment of a successful MPA, are largely responsible for the return or increasing abundance and size of a very wide range of finfish species, invertebrates, seaweeds and birds, many of which are either being seen for the first time in the lives of today's older fishers or have returned after long absences. The results show that the marriage of the best indigenous and modern taxonomic knowledge may be the only way of really determining how our efforts at marine conservation are impacting on, and will ultimately affect, marine biodiversity and the sustainability of its use by local communities. Authors: Randy Thaman (Professor of Pacific Islands Biogeography, USP, Suva), Asakaia Balawa (Navakavu, LMMA Committee and Master Fisher, Waiqanake Village, Viti Levu, Fiji) and Teddy Fong (Research Associate and Postgraduate Student, USP)

Lui Bell, SPREP	Regional Marine Species Action Plans Since 2003, SPREP has been facilitating implementation of the regional marine species action programmes with separate 5-year action plans for three groups of marine species of conservation concern: dugongs, marine turtles and cetaceans (whales and dolphins). These regional action plans are developed by member countries and territories and partners working in the region and endorsed by the SPREP Meeting. The actions are centred on 9 key themes: National, Regional and International Collaboration & Cooperation; Threat Reduction; Ecosystem/Habitat Protection; Capacity Building; Education and Awareness; Cultural Significance and Value; Legislation and Policy; Research and Monitoring; Whale and Dolphin-based Tourism. In 2009, the regional action plan for sharks was launched jointly by SPC, FFA and SPREP. Significant achievements have been attained for conservation and protection of these marine animals in the region. Considerable achievement was accomplished through the work of partners in the region and national governments. The achievements include establishment of sanctuaries and MPAs, improved legislation, increased research and involvement of communities, increased awareness and information, improved capacity/skills, approved regional guidelines and species recovery plan, regional MoU on species conservation, increased participation of the region in species conventions, and increased collaboration. Authors: Lui AJ Bell, Marine Species Adviser, SPREP Sue Miller-Taei, Conservation International
Allan Bero and Jack Daniels, Tetapare Descendants Association	Tetepare Descendants' Association (TDA) Community based Marine Turtle Monitoring, Conservation, education and Awareness Program The plight of marine turtle species has not only captured the attention of scientists and environmentalists around the world but also local communities as well. The need to take action to conserve and protect these creatures has become apparent. In the Western Province of the Solomon Islands, the Tetepare Descendants Association (TDA) has initiated a project that has conserved these creatures and their habitats around Tetepare and Rendova Island. The long term goal of the project is to help conserve the 'Critically Endangered' Leatherback (and 'Threatened' Green and Hawksbill Turtles) in the Solomon Islands, through habitat protection, improved nesting success and education so that future populations' numbers of leatherbacks, green and hawksbill turtles will increase. Tetepare Island, being the largest uninhabited island in the South Pacific ocean, is recognized as a significant area for the conservation of terrestrial and marine biodiversity. The critically endangered leatherback turtle nests undisturbed on Tetepare's black sand beaches and the critically endangered hawksbill turtle and endangered green turtle feed on its reefs and seagrass beds. TDA has successfully encouraged member communities on the western coast of Rendova Island to refrain from harvesting turtles or their eggs, and forego economic activities with the potential to degrade nesting beaches (such as logging). Although turtle protection is perceived as a benefit to conservationists, it often represents a loss to villagers in terms of foregone protein or income. As basic economic needs are not met in many of the areas hosting nesting beaches and foraging grounds, the economic sacrifice required to protect turtles has hampered the acceptance and sustainability of these projects. This presentation highlights both the success stories and challenges that TDA faces with its turtle conservation actions in the Solomon Islands. Authors: Allan Tippet Bero, John Paranga, Matt Suka, Gillian Goby, Katherine Moseby, John Read, Tetapare Descendants Association
George Petro, Wan Smolbag	Achieving success through community-based conservation – the Wan Smolbag Experience. The South Pacific boasts one of the most diverse marine environments in the world. Out of the seven species of sea turtle on the planet, six can be found in the region. However, it has long been a concern that these ancient mariners are rapidly declining in number, with all seven species now endangered. Back in 1995, the Pacific celebrated the Year of the Turtle to create public awareness of issues surrounding the species' demise. Vanuatu drama group *Wan Smolbag* took an out-of-the-box approach to the problem, engaging with communities across the country through participatory theatre performances about the threatened creatures, changing attitudes towards conservation in the process. Nearly two decades on, the hugely successful initiative is yielding significant results. Utilising a community participation approach to conservation, *Wan Smolbag* travelled to villages across Vanuatu gathering information on people's perceptions of sea turtles, including how many each area was killing, and why. This information was then used to create a play about the ramifications of overharvesting, urging people to change their behaviour and adopt a more environmentally-friendly approach to help preserve sea turtle numbers. In order to continue a dialogue on these issues long after the play had finished, *Vanua-Tai* (meaning "of land and sea") resource monitors were appointed in each village, working closely with *Wan Smolbag* to create a more sustainable environment for sea turtles in their communities. This long-term, community-centred approach to conservation has seen a remarkable decrease in sea

	turtle killings in Vanuatu. There are now more than 500 *Vanua-Tai* monitors operating across the entire country, highlighting the power of *Wan Smolbag*'s work to change attitudes and build a nation-wide conservation network focusing on conservation, management and sustainable use of marine and terrestrial species. Author: George Petro, Wan Smolbag, Vanuatu
Fiona Tuiwawa, University of the South Pacific	Progress in Taxonomy of Fijian species

The Way Forward

Mark O'Brien, Birdlife International	Avian Prioritisation – how the red-listing process has provided a mechanism for identifying bird species most in need of conservation action in the Pacific. This presentation summarises the benefits delivered by assessing all bird species based on the criteria derived from the IUCN red-listing programme. This will identify those species that are most in need of conservation action. We will review this for bird populations in the Pacific and assess the implications of the results for prioritizing future conservation management in the region. We will present some case studies indicating how the programme has allowed us to effectively targeted conservation needs. Finally we will consider the implications of the programme for continued assessment, highlight some of the upcoming challenges with assessing the conservation status of bird populations both globally, and in the Pacific, and how this might affect the maintenance of a red-listing process for other, less well studied, taxa. Authors: Mark O'Brien and Stuart Butchart, BirdLife International Pacific
Ross Sinclair, Wildlife Conservation Society	Stopping megapode extinctions in Oceania – research from the Solomon Islands and Papua New Guinea can help save the threatened megapodes of Tonga and Vanuatu Almost all the megapode species encountered by humans as they colonized Oceania are now extinct. Of those remaining, most are classified as at risk of extinction. This puts megapodes among the most degraded and at risk families of birds in the world. The factors that likely led to the extinction of 30 or more species of megapode are unchanged today: unsustainable use by humans, habitat change and introduced species. One thing that has changed is we now have the information and tools to arrest the declines. Unlike our ancestors, we know in broad terms what species are declining and have hypotheses as to why this is occurring. In a few cases we have gathered enough information to design and implement management plans to protect megapode populations and reduce the risks of further extinctions. For example, the experimental use of hatcheries and closed seasons in the Solomon Islands shows how substantial numbers of chicks can escape harvests and this has lead to sustainable management plans. Research at nesting sites of several species in PNG reveal the important habitat characteristic that need to be protected in areas that face habitat change. Despite this knowledge, and a few success stories, not enough active management is taking place to protect species such as the threaten Malau (*Megapodius pritchardii)* and Vanuatu Megapode (*M. Layardi*). Simply put, we need to do more to prevent species such as these joining the long list of extinct megapodes. Author: Ross Sinclair, Wildlife Conservation Society - Papua New Guinea Program
Ana Tiraa, Cook Islands Climate Change Unit and Te Ipukarea Society	Setting Conservation priorities in the Cook Islands
Chris Filardi, American Museum of Natural History	Good governance, customary unity, and a way forward for conserving the cloud forests of Kolombangara The biodiversity of the Solomon Islands is globally recognized, yet less than 1% of land or sea is under formal protection, partly due to complex systems of customary land tenure. Despite this lack of formal protection, the Solomon Islands maintain a rich endemic fauna, particularly montane birds and frogs. Kolombangara Island in the Western Province is no exception. Here, several species of endemic birds are confined to its upland forests and evidence suggests numerous endemic frogs and other vertebrates remain to be described by science. Like other islands across the Solomon chain, Kolombangara's fauna is under threat from poorly regulated resource extraction requiring urgent conservation action. A strong conservation program led by landholders has emerged to conserve the upland montane forest on Kolombangara. Creating a neutral body separate from divisive land ownership issues has been fundamental. Kolombangara Island Biodiversity Conservation Association (KIBCA) is an empowered, locally-driven conservation institution leading real efforts to conserve Kolombangara Island's unique biodiversity and customary connection to sacred upland areas. The geography, ecology, and altitudinal

	gradients required by these endemic species reflect historic unity among Dughore people and have a scale beyond any single landholding interest. Through KIBCA's whole island approach, Kolombangara now hosts the largest terrestrial protected area in the Solomon Islands including all lands above 400m in altitude. Despite ongoing challenges, KIBCA won a High Court challenge against logging in 2010 and works to improve well-being for Kolombangara's Dughore people, something that has been challenged by disunity among the island's communities. Authors: Ferguson Vaghi, Kolombangara Island Biodiversity Conservation Association, Kolombangara Island, Solomon Islands and Christopher Filardi, American Museum of Natural History, New York, USA
Leilani Duffy, Conservation International Pacific Islands Program	Terrestrial species prioritization in the Polynesia-Micronesia hotspot and CEPF investment The CEPF Investment Strategy for Polynesia-Micronesia hotspot identified 67 priority species as critically endangered and endangered, based on three major categories; need for species-focused action, red list category and taxonomic distinctiveness. Species were classified into plants and animals (amphibians, birds, snails, flying foxes and bats, and reptiles). Over the past four years of the programme, however, only 18 species from the priority list have been supported. The low number of specific projects targeting CEPF priority species could be due to some limiting factors such as: expertise available for plants and animals (amphibians, snails, and flying foxes) in the Pacific Region; data deficiency based on geographic location; and species not being identified as important in national country priorities set forth in NBSAPs. This paper will address the gaps in the species priority list by assessing the CEPF support to its Strategic Direction 3, 'building awareness and participation of local leaders and community members in the implementation of protection and recovery plans for threatened species'. Possible options will be discussed for a way forward in strengthening support for these species to leverage regional and national recognition of the value of species in biodiversity conservation, thus contributing to the implementations of NBSAPs and meeting Target12 of the Aichi Targets agreed at CBD COP 10 in Nagoya. Author: Leilani Duffy, Conservation International – Pacific Islands Program

Diana Fisher, University of Queensland	Habitat and conservation needs of *Pteralopex taki*, the New Georgia monkey-faced bat The poorly-known flying fox genus *Pteralopex,* Monkey-faced bats, is restricted to the Solomon Islands archipelago (the closely related genus *Mirimiri* occurs on the island of Taveuni, Fiji). Five species have now been described: all are endangered or critically endangered, two may be extinct. We conducted a field study on the New Georgia Monkey-faced bat from February to May 1992. At that time, the species had just been discovered and was not yet formally described. Our aims were to determine its distribution, confirm its taxonomic status, assess its conservation status and to provide ecological data potentially useful for conservation, particularly on its habitat needs. We found New Georgia Monkey-faced bats at four sites on the islands of Vangunu and New Georgia, but not on Kolombangara. The species was most common around an old village site abandoned approximately 100 years ago in eastern New Georgia, in undisturbed rainforest, and adjacent gardens. *Pteralopex* taki was apparently absent from regrowth forest after logging or cyclone damage. It roosts in the hollows of tall canopy or emergent trees (particularly *Ficus* spp.), either singly or in small groups. It has a quiet disposition and is easy to catch by hand. Twenty years later, this species has likely disappeared from former sites that have been logged, but it has recently been found on another part of Vangunu that is a nature conservation area. It is endangered due to its restricted range in an area of intense logging (lowland forest on parts of only two islands), dependence on large trees for roosting, and susceptibility to hunting. Authors: Diana Fisher, Liz Tasker and Tyrone Lavery, University of Queensland
Edgar Pollard, University of the South Pacific	Malaita Herpetofauna; Threatened Cultural Knowledge The island of Malaita in the Solomon Islands has a rich and diverse cultural heritage. This heritage which has evolved over thousands of years with the unique flora and fauna of the island has resulted in a fragile but balanced equilibrium between culture and nature. But through recent changes in land use practices and human behavior the existence of these unique species and their associated cultural knowledge systems is under threat. This research involved the sampling for frogs, geckos and skinks in the south of Malaita and interviews across age-groups with locals regarding the sampled species, over the period August 2011 to April 2012. Initial results show that certain species are now rare on the island and threatened with local extinction, also and maybe more importantly associated cultural knowledge of these species is being lost with many of the younger generation having minimal interaction with and knowledge of the species. This information will be presented in a poster showcasing the natural and cultural richness of Malaita's herpetofauna Author: Edgar Pollard, University of the South Pacific

APPENDIX 6: ATTENDEES

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