A2P Workshop Report:

Moving from Assessment to Planning for 160 Threatened Terrestrial Vertebrates of the Philippines

Department of Environment and Natural Resources
Biodiversity Management Bureau

RAINFOREST TRUST

Mandai NATURE

IUCN SSC Species Survival Commission

CONSERVATION PLANNING SPECIALIST GROUP

CONSERVATION INTERNATIONAL Philippines

This document: reports on the aims and outcomes of an Assess-to-Plan Workshop, held virtually from January 25th-27th, 2022. A full list of workshop participants is provided in Appendix II and all are thanked for their participation and contributions.

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IUCN SSC Conservation Planning Specialist Group (CPSG): was established in 1979. Its mission is to increase the effectiveness of conservation efforts worldwide through scientifically sound, collaborative planning processes that bring together people with diverse perspectives and knowledge to catalyse positive change for species. CPSG provides species conservation planning expertise to governments, other SSC Specialist Groups, zoos and aquariums, and other wildlife organisations.

IUCN Species Survival Commission (SSC): is the largest of IUCN's six volunteer commissions with a global membership of 1000s of experts. SSC advises IUCN and its members on the wide range of technical and scientific aspects of species conservation and is dedicated to securing a future for biodiversity. SSC has significant input into the international agreements dealing with biodiversity conservation.

IUCN – Global Species Programme (GSP): The IUCN Global Species Programme supports the activities of the IUCN Species Survival Commission and individual Specialist Groups, as well as implementing global species conservation initiatives. It is an integral part of the IUCN Secretariat and is managed from IUCN's international headquarters in Gland, Switzerland. The Species Programme includes staff hosted by multiple IUCN offices around the world and several technical units including the IUCN Red List Unit, Species Trade and Use, Freshwater Biodiversity Unit (all located in Cambridge, UK), the Global Biodiversity Assessment Initiative (located in Washington DC, USA), and the Marine Biodiversity Unit (located in Norfolk, Virginia, USA).

Conservation International (CI): is a not-for-profit environmental organisation focused on science, policy and partnership with businesses, governments, and communities. Since 1987 CI has worked to spotlight and secure the critical benefits that nature provides to humanity. It has offices in more than two dozen countries and a worldwide network of thousands of partners.

Biodiversity Management Bureau (BMB) of the **Department of Environment and Natural Resources** (DENR) Republic of the Philippines has a mission to conserve and sustainably manage the country's biodiversity. Their major functions include: (i) Formulate and recommend policies, guidelines, rules and regulations for the establishment and management of an Integrated Protected Areas System such as national parks, wildlife sanctuaries and refuge, marine parks and biosphere reserves; (ii) Formulate an up-to-date listing of endangered Philippine flora and fauna and recommend a program of conservation and propagation of the same; (iii) Formulate and recommend policies, guidelines and rules for the conservation of the three (3) components of biological diversity: genetic resources, ecosystems and endangered species of Philippine flora and fauna; (iv) Assist the Secretary in the monitoring and assessment of the management of the Integrated Protected Areas System and provide technical assistance to the Regional offices in the implementation of programs for these areas.

CONTENTS

ACRONYMS & ABBREVIATIONS

AHP	ASEAN Heritage Park
ASF	African Swine Fever
A2P	Assess-to-Plan
BAI	Bureau of Animal Industry
BARMM	Bangsamoro Autonomous Region in Muslim Mindanao
BCMP	Biodiversity Conservation and Monitoring Programme
BCSP	Biodiversity Conservation Society of the Philippines
BLGU	Barangay Local Government Unit
BMB	Biodiversity Management Bureau
BSAP	Biodiversity Strategy and Action Plan
CAR	Cordillera Administrative Region
CCI	Centre for Conservation Innovation
CENRO	Community Environment & Natural Resources Office
CEPF	Critical Ecosystem Partnership Fund
CI-Philippines	Conservation International Philippines
CPSG	IUCN SSC Conservation Planning Specialist Group
CR	Critically Endangered
DD	Data Deficient
DENR-BMB	Department of Environment & Natural Resources – Biodiversity Management Bureau
DOST	Department of Science and Technology
DRA	Disease Risk Analysis
EAZA	European Association of Zoos and Aquaria
EDC	Energy Development Corporation
ELAC	Environmental Legal Assistance Centre
EN	Endangered
ENIPAS	Expanded National Integrated Protected Areas System
FAO	Food and Agriculture Organisation of the United Nations
GIS	Geographical Information System
GSP	Global Species Programme
HCVAs	High Conservation Value Areas
IEC	Information Education and Communication Campaign
IPs	Indigenous Peoples
ISLA	Island Biodiversity Conservation
IUCN	International Union for the Conservation of Nature
IUCN - BAU	International Union for the Conservation of Nature – Biodiversity Assessment Unit
Katala	Katala Foundation, Inc.

KU	University of Kansas
LAMAVE	Large Marine Vertebrates Research Institute Philippines
LC	Least Concern
LGU	Local Government Unit
MBCFI	Mindoro Biodiversity Conservation Foundation Inc
MbZ	The Mohamed bin Zayad Species Conservation Fund
MSU	Mindanao State University
NAPERSEP	National Action Plan for Ecosystem Restoration and Species Extinction Prevention
NatGeo	National Geographical
NCIP	National Commission for Indigenous Peoples
NIBSAP	Negros Island Biodiversity Strategy & Action Plan
NPD	National Parks Division
OIE	World Organisation for Animal Health
PA	Protected Area
PBFD	Psittacine Beak and Feather Disease
PBSAP	Philippines Biodiversity Strategy and Action Plan
PCSD(S)	Palawan Council for Sustainable Development (Staff)
PCTAR	Philippine Centre for Terrestrial and Aquatic Research
PENAGMANNAK Inc	Pederasyon sa Nagkahugpong mga Mag-uuma nga Nanalipud ug Nagpasig-uli sa Kinaiyahan Inc.
PENRO	Provincial Environment and Natural Resources Office
PhilBio	Philippines Biodiversity Conservation Foundation Inc
PhilinCon	Philippines Initiative for Environmental Conservation
PMR	Panay Mountain Range
POs	People's Organisations
SSC	Species Survival Commission (of IUCN)
TTVPs	Threatened Terrestrial Vertebrates of the Philippines
UP	University of the Philippines
UPCVM	University of the Philippines College of Veterinary Medicine
UPLB	University of the Philippines Los Baños
USAID	United States Agency for International Development
VU	Vulnerable
WCS	Wildlife Conservation Society (USA)
WV	West Visayas
WWF	Worldwide Fund for Nature
ZSL	Zoological Society of London

EXECUTIVE SUMMARY

PLANNING FOR SPECIES CONSERVATION IN THE PHILIPPINES

The Philippines is one of the world's biologically richest countries. Within its borders lie 7,100 islands which are home to many endemic terrestrial and freshwater species, including: plants (N=9253); freshwater fish (N=89); amphibians (N=98); reptiles (N=242); birds (N=535); and mammals (N=167). Many of these are known to be threatened with extinction.

The Philippine Biodiversity Strategy and Action Plan (PBSAP) is the country's roadmap to conserving its biodiversity and achieve its vision - "By 2028, biodiversity is restored and rehabilitated, valued, effectively managed and secured, maintaining ecosystem services to sustain healthy, resilient Filipino communities and delivering benefits to all." An associated document, the National Action Plan for Ecosystem Restoration and Species Extinction Prevention (NAPERSEP), provides recommendations for conservation action at the level of habitats, multi-species groups and individual species. These actions are designed to be implemented through regional and local management and action plans that are aligned with the PBSAP, while taking account of local contexts, priorities and needs.

THE IUCN'S APPROACH TO SPECIES CONSERVATION PLANNING

The IUCN Red List of Threatened Species currently identifies more than 40,000 species as at risk of extinction (of 142,500 so far assessed). Its species arm, which includes the Global Species Programme (GSP) and Species Survival Commission (SSC), is committed to helping governments around the world to reverse the decline of species and help drive their recovery, paying special attention to those already threatened with extinction.

The primary vehicle for this support is the SSC Species Conservation Cycle of assessment, planning and action (see Figure 1.). Through this, using the IUCN Red List methodology, individual species are assessed iteratively to gather information and confirm conservation status and trends; support is provided to help plan conservation activities for species of most concern; and the implementation of these activities is catalysed and enabled.

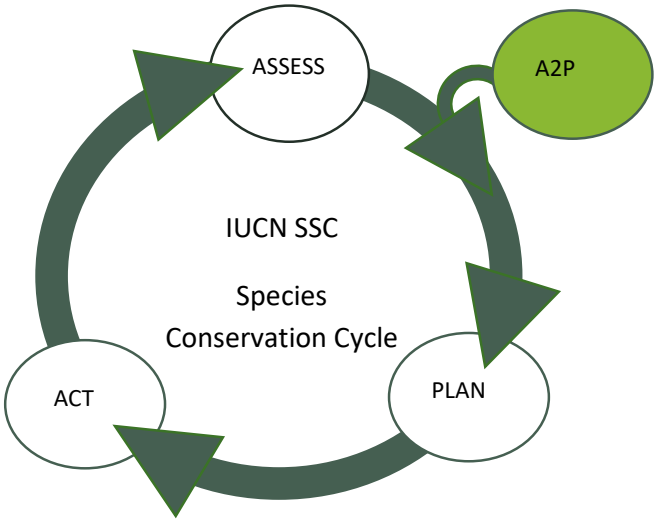


Figure 1. Assess-to-Plan (A2P)

- Sits between assessment and planning.
- Looks for efficient ways to plan & deliver conservation for threatened species.
- Aims to ensure no species fall through the cracks.

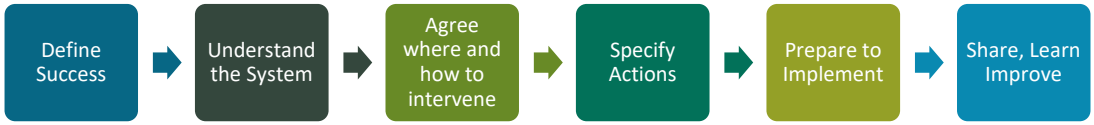
THE CONSERVATION PLANNING SPECIALIST GROUP

Within the SSC, planning is led by the Conservation Planning Specialist Group (CPSG). Using a series of planning steps, the delivery of which is underpinned by seven basic principles (see BOX 1), CPSG supports diverse groups to plan the conservation of threatened species. Over the last 40 years these principles and steps have been applied to hundreds of species worldwide. In the Philippines, working with Department of Environment & Natural Resources (DENR)-Biodiversity Management Bureau (BMB) and other partners, they have recently been applied to the Tamaraw (see Figure 3.), the Sulu Hornbill, the Philippine Pangolin and to five high-profile species of the Western Visayas (Visayan Warty Pig, Visayan Spotted Deer, Rufous-headed Hornbill, Visayan Hornbill, and Negros Bleeding-heart Dove).

Planning can be an important foundation and driver of effective action, and CPSG aims to ensure that, *"Every species of conservation concern is covered by an effective, implemented plan".*

BOX 1. IUCN SSC CPSG Planning Principles and Steps

Steps



Principles

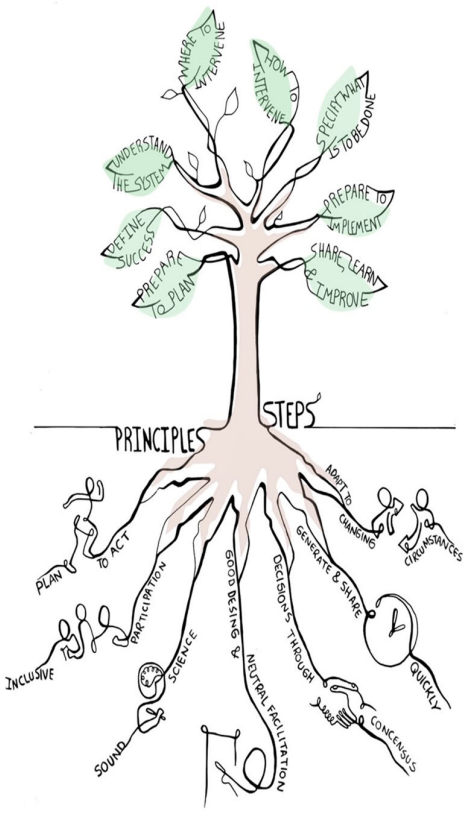
1. Plan to act. The intent of planning is to promote and guide effective action to save species. This principle underpins everything we do.

2. Promote inclusive participation. People with relevant knowledge, those who direct conservation action, and those who are affected by that action are all key to defining conservation challenges and deciding how those challenges will be addressed. Inclusivity refers not only to who is included in the planning process, but also to how their voices are valued and incorporated.

3. Use sound science. Working from the best available information—whether that be established facts, well-supported assumptions, or informed judgments—is crucial to good conservation planning. Using science-based approaches to integrate, analyse and evaluate this information supports effective decision-making.

4. Ensure good design and neutral facilitation. Good species planning is designed to move diverse groups of people through a structured conversation in a way that supports them to coalesce around a common vision for the species and to transform this into an achievable, effective plan. Facilitators skilled in planning are essential in guiding these processes. Critically, neutral facilitation eliminates potential or perceived bias in the planning process, helping participants to contribute their ideas and perspectives freely and equally.

5. Reach decisions through consensus. Effective species conservation planning results in decisions that all participants can support or accept. Recognizing shared goals, seeing the perspective of others, and proceeding by consensus helps galvanize participants behind a single plan



6. Generate and share products quickly. Producing and sharing the products of a conservation planning process quickly, freely, and widely are important factors in its success. Delays carry a cost in terms of lost momentum, duplicated or conflicting effort or missed opportunities for action.

7. Adapt to changing circumstances. Effective plans are those that evolve in response to new information and to changing circumstances—biological, political, socio-economic, and cultural—that influence conservation efforts. Plans are considered living documents that are reviewed, updated, and improved over time.

THE ROLE OF ASSESS-TO-PLAN (A2P)

Each planning initiative for an individual species requires months of preparation and days of discussion among multiple stakeholders. Though the existence of a plan is no guarantee of successful conservation, studies show that on average, these initiatives generate good downstream results for targeted species, often providing a turning point in their conservation by helping the diverse groups involved to transition to more effective ways of working together (see Figure 2.). However, it is not possible to apply this time and effort to all species of concern and efficiencies are needed. One area of efficiency can be found in grouping for planning and action those species expected to benefit from the same kinds of conservation action taken in the same place or by the same community of actors. The Assess-to-Plan (A2P) approach is designed to build these groupings based on information collected during the Red List assessment process, as well as to identify those species that really need, and can attract the resources for, single-species planning. Once groupings are agreed, A2P discussions are designed to: develop an outline of the planning or action required for each of them; elicit information on the leads, collaborators and stakeholders who should be involved; identify the next steps towards the planning or action prescribed; and to recommend who could take those steps. This is an intermediate step in the Species Conservation Cycle (see Figure 1.), that helps to move more threatened species, more quickly, from assessment to action through planning.

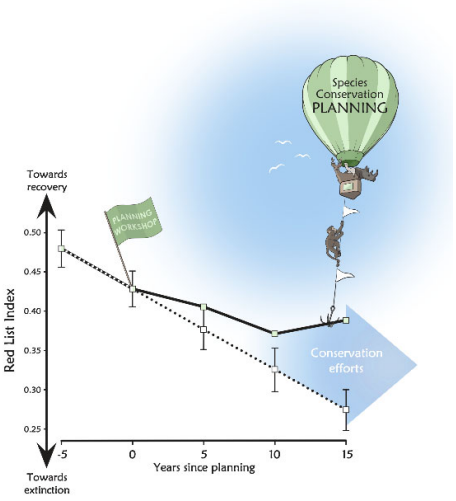


Figure 2. Science-based, inclusive & participatory conservation planning helps reverse the decline of threatened species by supporting those involved to transition rapidly to more effective ways of working together (from Lees et al. 2021).

THE PHILIPPINES A2P WORKSHOP

From January 25-27th, 2022, more than 30 experts from multiple organisations gathered virtually, to apply the A2P approach to 160 globally threatened terrestrial vertebrates of the Philippines. The goals of the workshop were:

- **To review the status and coverage of conservation action planning** for globally threatened terrestrial vertebrates of the Philippines;
- **To recommend pathways to effective planning and action** for all species not currently covered by a recognised plan or programme of action;
- **To identify the potential leads**, collaborators, and stakeholders for each conservation planning/action pathway;
- **To recommend next steps** and who could take them.

While most terrestrial vertebrates of the Philippines have documented assessments and global risk categories assigned using the IUCN's Red List assessment methodology, reptile data were largely incomplete at the outset of this project. Therefore, to proceed, it was first necessary to complete Red List assessments for Philippines terrestrial reptiles and this was done by experts in three workshops in 2021, as described below.

THE REPTILE RED LIST WORKSHOPS

The Philippines is home to 323 recognised species of terrestrial snakes and lizards, of which over 240 are endemic and 97 of which – all endemic to the archipelago – had not previously been assessed for the IUCN Red List. As a result of an extreme rate of taxonomic change, almost 10% of the Philippine snakes and lizards on the Red List, first assessed in 2007, have assessments that do not represent the current taxonomic concept for these species. A reassessment of the Red List status of the reptiles of the Philippines was therefore critical to fill an important gap in the Red List data for Philippine vertebrates in order to inform the A2P conservation planning process.

THE RED LIST ASSESSMENT WORKSHOP PROCESS AND PARTICIPATION

Three Red List assessment workshops, each of three days – and a preliminary one-day training session for participants – were convened via Zoom, organized by Conservation International Philippines (CI-Philippines) and the Philippine Biodiversity Management Bureau (BMB).

Each workshop followed the same format, with experts in both the species and the focal geographic areas (Luzon – 21-23 September 2021; West Visayas, Mindoro & Palawan – 5-7 October 2021; Mindanao, East Visayas and Sulu Archipelago – 19-21 October 2021) invited to comment on and update the assessments and maps prepared by IUCN's Biodiversity Assessment Unit for each of that region's terrestrial snakes and lizard species, and to agree provisional Red List Categories and Criteria. BMB kindly provided support from mapping specialists to assist with updating the assessments. The workshops themselves were each led by two IUCN facilitators, with observers from the CPSG who assisted with the collection of data needed for the conservation planning workshop and the meetings were all chaired by Edward Lorenzo of CI-Philippines.

In total, 25 Philippine experts and one US scientific expert attended these workshops, 12 regional representatives from the DENR (familiar with the individual management regions), and 19 staff from BMB attended the three workshops, although connection issues limited some of the feedback from the DENR regional staff in particular.

POST-WORKSHOP REVIEW

Following the final workshop IUCN-BAU and IUCN SSC Specialist Groups reviewed the assessments from all three workshops, ensuring that the data for each provided supported the proposed Red List Category and Criteria and resolving any ambiguities in the text and associated coding in order to ensure the assessments could be included in analyses. During this process the maps were finalized and sent to the original assessors for approval. Queries identified during this process were resolved through email correspondence or Zoom calls with individual assessors, and several people who had been unable to attend were given the opportunity to review and comment on the assessments.

In total, 323 species including 242 endemics were assessed, and the endemics submitted for publication on the Red List in April 2022.

RESULTS

Of the species that were assessed in 2007, 13% were identified as being threatened (Critically Endangered (CE), Endangered (EN) or Vulnerable (VU)). This is now understood to be below the global average and was expected to be a severe underestimate now that so much more of the fauna is understood to consist of localised endemics in a country which has lost most of its lowland forest cover.

Red List Category	No. Species
CR	2
EN	6
VU	13
DD	51
NT	19
LC	151

Table 1: Number of endemic snake and lizard species in each Red List Category following review.

Surprisingly, this is not what the assessment found (Table 1). The result of the new assessments was that only 8.6% of Philippine snakes and lizards are threatened with extinction, although the proportion of Data Deficient (DD) species (21.1%) is somewhat higher than the global average (14.8%). There has been no analytical comparison between the outputs of the current and earlier workshops, but this may partly reflect a large number of new species having been described from within disturbance-tolerant species complexes – and so an

unexpectedly large proportion of post-2007 descriptions being listed as Least Concern (LC), in addition to a change in Guidelines affecting how extent of occurrence and area of occupancy are calculated which would have resulted in a number of the 2007 assessments being 'downlisted' to less threatened categories.

At a taxonomic level these results were driven largely by skinks, which comprise 105 of the 242 endemics and which exhibited high proportions of both LC (62.9%) and DD (20%) species. The latter reflects a lack of local expertise in this group and its neglect in general survey work due to a shortage of suitable training and identification materials, a capacity issue raised by a number of participants during all three workshops. Other families in which species were any identified as threatened exhibited proportions of threatened species ranging from 6.9% (geckos, with a sample size of 29) to 25% (vipers, with a sample size of 4). Data deficiency was highest in skinks and in three groups of fossorial or burrowing snakes (Calamariidae – 41.7%, n=12; Cyclocoridae – 28.6%, n=7; and Typhlopidae – 71.4%, n=14). This underlines another general concern raised at the workshop, a lack of capacity for surveying and identifying leaf-litter dwelling and burrowing animals (which includes many skinks as well as these snake families).

CONCLUSIONS

The remote workshop process, ably managed by CI-Philippines and BMB, was overall a success and provided a strong proof of concept for holding workshops at this scale via Zoom, as well as developing the IUCN-BAU-CPSG partnership. Lessons to takeaway were that time zone differences could be a significant barrier to obtaining voluntary participation from experts outside the Philippines, and that stability issues in-country posed a recurring issue for DENR staff. The resulting review process was also more extended as a consequence, although access to recorded sessions was helpful.

While the results of the workshop did not identify very many species as threatened, and some of those had previously been listed as threatened in 2007, the process took advantage of fuller data in some of these cases as well as improvements in IUCN's approach to compiling supporting documentation to support these listings in a way that may allow more targeted actions by conservation managers, identifying specific remedial action needed for several species as well as more detailed documentation on their precise habitat requirements and the mechanisms underlying their vulnerability.

PRE-A2P-WORKSHOP REVIEW OF PLANNING COVERAGE

Completion of the reptile assessments brought the total number of IUCN-assessed globally threatened terrestrial vertebrates of the Philippines to 194. Some of these species occur mostly outside the Philippines and were not included for discussion because making advances at the species level would require the inclusion of experts from other countries. Other species were not included for discussion because they are already the focus of planned conservation activities. Therefore, from the list, species were removed if they were:

1) Recorded in the IUCN Red List as "Vagrant, Non-breeding" in the Philippines or as occurring predominantly outside the Philippines (N=35);
2) Already the explicit target of species-specific conservation activities (N=35) evidenced by:
    a. a dedicated strategy or action plan for the species (e.g. Figure 3.) or
    b. a dedicated section of the NAPERSEP2016 multi-species action plan or
    c. a recognised programme of conservation action (where some form of plan can be assumed) referenced in the IUCN Red List account.

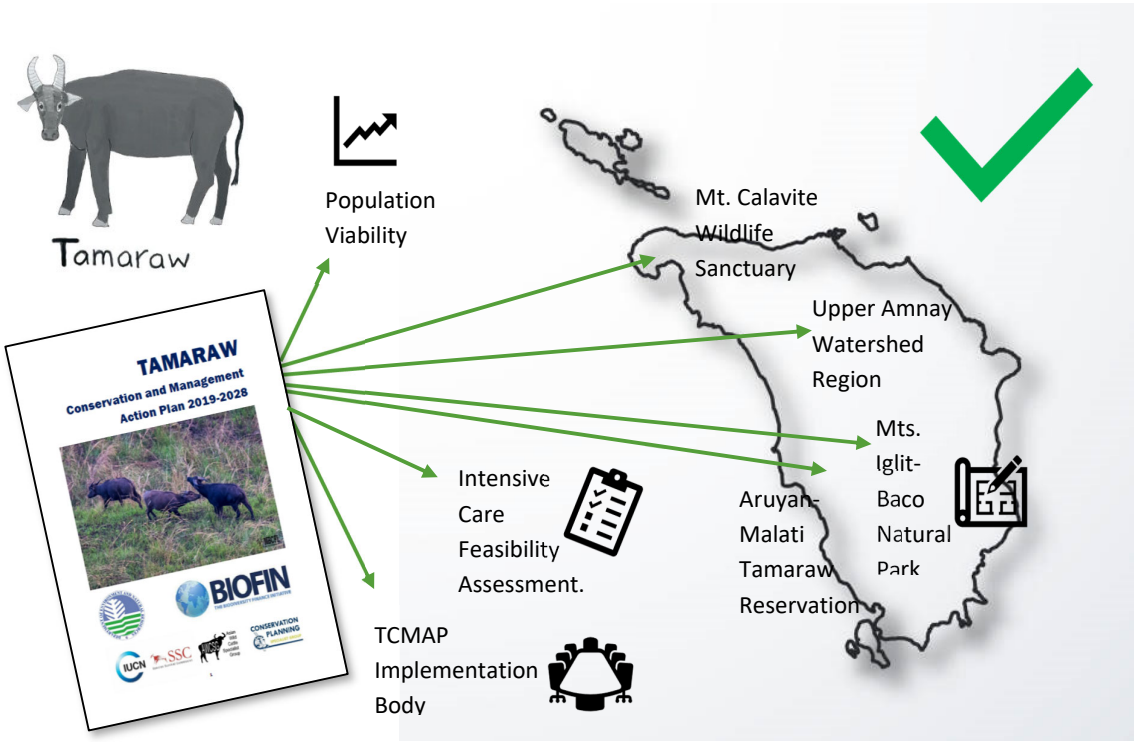


Figure 3. Example of a Critically Endangered Species that is already well-covered by active plans. The Tamaraw, *Bubalus mindorensis*, is the subject of a dedicated conservation and management action plan, which includes a population viability analysis for all extant populations and detailed recommendations for the steps involved in ensuring a long-term future for each. These recommendations are also reflected in management plans for Protected Areas where the species occurs, such as the Mts. Iglit-Baco Natural Park Management Plan. In addition, because this species is vulnerable to small population effects, it is the subject of an *ex situ* management feasibility study. Though it is action on the ground that will conserve the Tamaraw, the role of planning in supporting such action has been thoroughly addressed.

In addition to the species excluded in this way, there may also be species whose needs are adequately covered by, for example, inclusion in one or more Protected Area (PA) management plans, or by inclusion under a planned programme of habitat restoration and management within major strongholds. Constraints on time and resources prevented us from gathering enough information to evaluate this level of coverage.

Of the species not known to be covered by a plan or recognised programme of conservation activity, additional priorities for A2P discussions were species that might be especially vulnerable in the short-term either because their known distribution falls outside any formally protected areas, or because their populations are small or highly fragmented, exposing them to small population risks (such as environmental, demographic or genetic stochasticity) that can drive declines even once other threats are removed, potentially requiring more active and intensive intervention to secure recovery. These species were identified as follows:

1) **Species not recorded from any protected area (N=22).** The IUCN Red List database was queried to find all taxa in the A2P species list that are flagged as not occurring in at least one protected area (N>50). This initial list was reviewed and corrected by BMB using more recent or complete information about species occurrences within formally protected areas, to generate the list of 22 species for consideration at the workshop. [Note that seven reptile species were added later, based on the recent assessments].
2) **Species that might be at risk to small population effects (N=31).** Species were considered potentially at risk if they satisfied one or more of the following (taken from IUCN Global Red List data):
    a. Estimated mature adults N≤1000; OR
    b. Criterion D or D2+VU; OR (very small or restricted population)
    c. Criterion C1+CR or EN; OR (small and declining number of individuals)

SPECIES INFORMATION COMPILATION

To assist the process of grouping species with similar conservation needs, the following data compilation steps were followed:

1) For all species in the analysis, information was drawn from IUCN Red List Database exports using R-script designed for that purpose. Additional information was integrated from the NAPERSEP2016 document or provided directly by BMB staff;

2) Using the IUCN Global Red List information on range distribution species were each assigned a number which allowed them to be organised according to degree of range overlap – that is, with highly sympatric species closest together;

3) Two information matrices were created:

a. A general matrix of species details including both IUCN and DENR threat categories, islands of occurrence (and more specific locations where known), population estimates, generation length, status of planning, vulnerability to small population effects, broad categories of conservation need, and the details of recommended conservation action contained in both the Red List Database and in the NAPERSEP2016 document.

b. An "A2P Matrix" showing all IUCN Red List coded data on Habitats, Threats, Trade and Use and Conservation Actions Recommended.

These sheets allow experts to view IUCN Red List (and additional) data across species, rather than one species at a time via the IUCN Red List web-site. This increases the visibility of patterns among threatened species in their distribution, habitat requirements, threats and conservation action needed.

THE A2P WORKSHOP

Following welcoming speeches and a series of scene-setting presentations, participants separated into three working groups. These groups periodically returned to the virtual plenary area, to report and discuss their progress.

- **GROUP 1: Critical Sites (22 species):** threatened species not known from any PA;
- **GROUP 2: Reptiles (22 + 58 species):** terrestrial reptile species recently assessed as CR, EN, VU plus DD species;
- **GROUP 3: Other Threatened, Terrestrial Vertebrates of the Philippines (TTVPs) (80 species)**: all remaining threatened terrestrial vertebrates of the Philippines not covered by a recognised plan or programme of action.

The principal recommendations from each of these groups are summarised below.

GROUP 1: CRITICAL SITES FOR SPECIES NOT KNOWN FROM ANY PROTECTED AREAS

Group 1 discussed 22 species not known from any protected areas, recommended candidate sites whose protection could be of critical importance to those species and carried out a preliminary evaluation of the potential impact and feasibility of achieving protection at those sites in the next 5-10 years.

No.	Species	IUCN Cat.	DAO 2019-09 Cat.	Sites identified
1	*Platymantis insulatus* Gigante Wrinkled Ground Frog	CR	CR	5
2	*Gallicolumba menagei* Sulu Bleeding-heart	CR	CR	0
3	*Prioniturus verticalis* Sulu Racquet-tail	CR	CR	0
4	*Phapitreron frontalis* Cebu Brown-dove	CR	CR	4
5	*Dicrurus menagei* Tablas Drongo	EN	CR	0
6	*Phapitreron cinereiceps* Tawitawi Brown-dove	EN	CR	0
7	*Rhipidura sauli* Tablas Fantail	VU	EN	0
8	*Crateromys heaneyi* Panay Crateromys	EN	EN	1
9	*Chrysocolaptes erythrocephalus* Red-headed Flameback	EN	EN	4
10	*Gallirallus calayanensis* Calayan Rail	VU	EN	2
11	*Tragulus nigricans* Balabac Mouse Deer	EN	VU	4
12	*Podogymnura aureospinula* Dinagat Gymnure	EN	VU	1
13	*Batomys russatus* Russet Batomys	EN	VU	1
14	*Geokichla interpres* Chestnut-capped Thrush	EN	NI	1
15	*Platymantis diesmosi* No common name	EN	NI	2
16	*Alcalus mariae* Palawan Eastern Frog	EN	NI	1
17	*Philautus schmackeri* Schmacker's Tree Frog	EN	VU	3
18	*Crateromys schadenbergi* Luzon Crateromys	EN	VU	1
19	*Robsonius rabori* Cordillera Ground-warbler	VU	VU	0
20	*Ninox reyi* Sulu Boobook	VU	VU	0
21	*Buceros mindanensis* Southern Rufous Hornbill	VU	NI	2
22	*Sanguirana aurantipunctata* No Common Name	VU	NI	1

Table 2. The list of species considered by Group 1 showing the IUCN and Philippines threat categories and the number of critical sites for protection suggested by participants at the 2022 workshop. (NI=Not Included)

Due to time constraints and the limited availability of key experts, not all species were able to be discussed and this work should be considered ongoing.

Of the sites suggested, seven (7) were identified both as high impact and as highly feasible in terms of getting protection in place over the next 5-10 years:

- Victoria Anepaan Mountain Range;
- Bugsuk;
- Ifugao & Mountain Province - specifically Mt. Amuyao;
- Mt. Mingan;
- Mt. Kambinlio, Loreto Municipality;
- Alcoy-Boljoon (mt. Nugas-Lantoy);
- All Babuyan island including Calayan.

For each suggested site, Group 1. compiled detailed information on the location and size of each area, on the other threatened species that could benefit by protection of the site (typically 5-6 but at some sites as many as 13) and on the principal contacts or stakeholders.

Further information and a map of the area is provided in the report from Working Group 1. (next section).

[Note: During review of the report a participant pointed out that *Alcalus mariae, Philautus schmackeri, Robsonius rabori, and Buceros mindanensis* are found in protected areas.]

GROUP 2: REPTILES RECENTLY ASSESSED AS THREATENED OR DATA DEFICIENT

Group 2 discussed 23 reptile species recently categorised as either CR, EN or VU, seven of which were not known from any formally protected areas. In addition, they discussed 58 species categorised as DD. The recommendations arising from discussions of threatened species are now incorporated into the IUCN's Red List Database and will be published on-line in 2022.

For the DD species, the group discussed both the nature of the data gaps (mainly related to lack of knowledge of distribution, ecology, and threats – see Figure 4a.) and reasons for those gaps (species being known only from historical specimens and records, difficulty of surveying some taxa, lack of survey capacity/effort - see Figure 4b.).

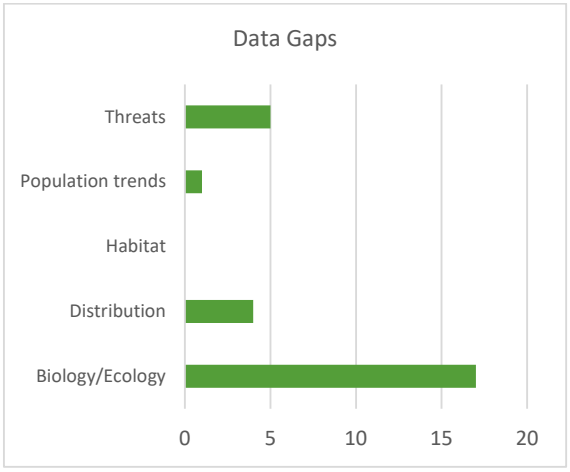


Figure 4a (left). Data gaps reported across 55 DD species of reptile. Source: IUCN Red List Database.

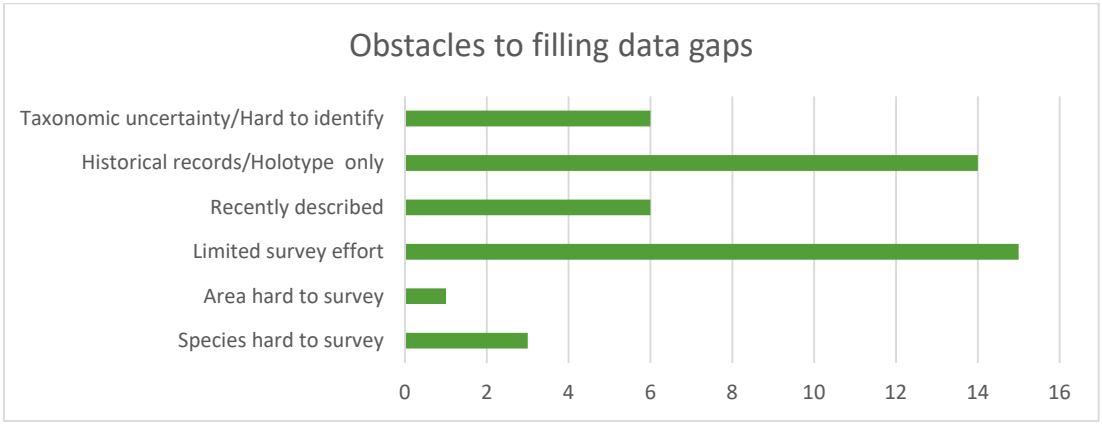


Figure 4b (below). Main reasons for the information gaps for 55 DD reptile species. Source: 2022 A2P workshop discussions.

RECOMMENDATIONS FROM THIS GROUP INCLUDED:

- Take urgent action to protect microhabitat for *Parvoscincus tikbalangi* (CR) as the type locality population is likely on the verge of extinction if not already lost;
- Convene a herpetological symposium to discuss and coordinate resolving data gaps for this group over the next 5-10 years.

Additional details and recommendations for other taxa are included in the Working Group 2 report.

GROUP 3: OTHER THREATENED TERRESTRIAL VERTEBRATES OF THE PHILIPPINES

The expertise of Group 3 was applied:

- to correct and update the individual species data provided in the information matrices, including details of any plans in progress that were not picked up in the pre-workshop review;
- to recommend efficient ways to group the remaining species for planning and action, making use of existing initiatives wherever possible.

Discussion outcomes are summarised in Table 3. and, if implemented, would result in at least 16 new action plans covering a total of 72 of the 80 threatened, terrestrial vertebrate species not known to fall under any current plans or programmes of conservation action. Participants also completed a rapid prioritisation exercise which identified the following as the highest priority planning initiatives:

- Calamian Deer
- Philippines Wild Pigs
- Bleeding Hearts

Table 3. Summary of Proposed Action Planning Projects

No.	Proposed Planning Projects	No. of species covered of the 80 priorities (and in total)
	Single species planning projects	
1	Calamian Deer [Note: During review of the report a participant pointed out that the Balabac mouse deer should also rightfully be proposed for Single species planning project, as it faces the same threat as the Calamian deer. During the workshop it was evaluated in Group 1 as a species not found in a protected area.]	1
2	Philippines Slow Loris	1
	Umbrella species planning projects	
3	Philippine Cockatoo (housing other cavity nesters)	1 (4 in total)
4	West Visayas Big 5 as an umbrella for threatened birds of the region	3
	Multi-species planning projects	
5	All Philippines Bats	7 (79 in total)
6	Rodents & Shrews (incorporating small rodents plus shrews and, separately, cloud rats)	7
7	Philippines Wild Pigs	1 (3 in total)
8	Bleeding Hearts (already underway)	1 (5 in total)
9	Palawan species that are ground-dwelling & hunted in lowland forest	2 (>4 in total)
10	Pigeons and Doves	5
	Habitat & ecology-based planning projects	
11	Forest Understorey & Songbirds	11
12	Owls	8
13a	Cave and Karst Dwelling Amphibians	19
13b	Mid-Montane and Lowland Forest Dwelling Amphibians	
	Possible future planning projects (contingent on survey results)	
14	Kingfishers	4
15	Blue-backed Parrot	1
16	Philippine Brown Deer	1

The BCSP agreed to take the lead on the remaining eight species that do not have a home within any of the sixteen planning projects recommended.

Further details of these projects and the discussions that led to their recommendation, are included in the Working Group 3 Report.

A2P POST-WORKSHOP SURVEY RESULTS

A post-workshop survey was carried out and the main findings were as follows:

- In general, overall satisfaction with the workshop was high (average score 6.13 out of 7);
- Participants were generally positive about the approach to multi-species planning and the process by which this was done;
- Participants found the time too short for the discussions that were needed and several would have preferred a face-to-face environment;
- Key experts were not sufficiently available which made it difficult to complete some of the work with confidence;
- The briefing materials needed to be circulated several weeks earlier, so that participants had more time to prepare and additional materials (including maps) were requested;
- Several participants expressed interest in a follow-up meeting, ideally face-to-face.

The full report from the post-workshop survey is included in an appendix.

POTENTIAL FUNDING OPPORTUNITIES

This report provides preliminary recommendations generated by workshop participants over two days of discussion. They are a starting point for further consideration and action. To implement many of the recommendations proposed, additional resources and support may be needed. The results of a brief post-workshop discussion produced the following suggestions:

- Rainforest Trust: for site-based protection and management;
- IUCN Asian Species Action Partnership: for work related to Critically Endangered (CE) species;
- Other suggestions: USAID, international Non-Government Organisations (NGO) such as Re:Wild, WCS, ZSL EDGE Fellowships for Evolutionarily distinct taxa; MbZ, CEPF, NatGeo, Rufford Foundation, Darwin Fund, Zoos and Zoo Associations (several are already supporting work in the Philippines).

The A2P workshop was designed and facilitated by the IUCN SSC CPSG with assistance from the IUCN Global Species Programme, Conservation International, Philippines, and DENR-BMB. Technical (including GIS) and administrative support, as well as advice on biodiversity planning and management in the Philippines, was provided by DENR-BMB. The main virtual platform used for collaboration was Zoom, with MURAL whiteboard used to support some of the discussions.

The workshop was sponsored by Mandai Nature and Rainforest Trust.

WORKING GROUP 1 REPORT: SPECIES OUTSIDE PROTECTED AREAS

INTRODUCTION

GROUP 1 targeted 22 species that were not known to be present in any formally protected areas based on IUCN Red List data and additional information from DENR-BMB (see Table 4.). Seven additional reptile species also fell into this category and were discussed by GROUP 2.

This group also included the Dinagat Bushy-tailed Cloud Rat (*Crateromys australis)* during the discussions even though it is currently assessed as Data Deficient in the IUCN Red List as of 2016. The participants felt that the likelihood of it being threatened is quite high and the species is known only from Dinagat Island, with possible overlapping range with two other species being assessed by them, namely the Dinagat Gymnure (*Podogymnura aureospinula)* and the Russet Batomys (*Batomys russatus).*

Table 4. List of threatened, terrestrial vertebrate species of the Philippines that are not currently known to occur in any proclaimed or legislated protected areas with distribution summary.

No.	Species	IUCN Cat.	DAO 2019-09 Cat.	DENR Comments
1	*Platymantis insulatus* Gigantes Wrinkled Ground Frog	CR	CR	Restricted range in Gigantes Island
2	*Gallicolumba menagei* Sulu Bleeding-heart	CR	CR	Restricted range in Sulu archipelago. No PAs in Sulu.
3	*Prioniturus verticalis* Sulu Racquet-tail	CR	CR	Restricted range in Sulu archipelago. No PAs in Sulu.
4	*Phapitreron frontalis* Cebu Brown-dove	CR	CR	Known only from Cebu Island. Considered possibly extinct but reports of species found on several occasions between 2007 and 2012. In November 2004, two possible individuals were observed in Alcoy Forest. Not sure if this species has been recorded in any PAs in the island.
5	*Dicrurus menagei* Tablas Drongo	EN	CR	Restricted distribution in Tablas Island
6	*Phapitreron cinereiceps* Tawitawi Brown-dove	EN	CR	Restricted range in Sulu archipelago. No PAs in Sulu.
7	*Rhipidura sauli* Tablas Fantail	VU	EN	Restricted distribution in Tablas Island
8	*Crateromys heaneyi* Panay Crateromys	EN	EN	Recorded in Panay Island only, probably in the mountainous portions (Gonzales and Kennedy, 1996; Oliver et al., 1993a). Not recorded in any PA
9	*Chrysocolaptes erythrocephalus* Red-headed Flameback	EN	EN	Recorded in Palawan but no documented observation in any PA yet.
10	*Gallirallus calayanensis* Calayan Rail	VU	EN	Restricted range in Calayan Island

No.	Species	IUCN Cat.	DAO 2019-09 Cat.	DENR Comments
11	*Tragulus nigricans* Balabac Mouse Deer	EN	VU	Restricted range in Balabac and adjacent small islands
12	*Podogymnura aureospinula* Dinagat Gymnure	EN	VU	Restricted range in Dinagat Island
13	*Batomys russatus* Russet Batomys	EN	VU	Known only from Dinagat Island.
14	*Geokichla interpres* Chestnut-capped Thrush	EN	NI	In the Philippines, found in Sulu Archipelago. No PAs in Sulu.
15	*Platymantis diesmosi* No common name	EN	NI	Recorded in Mt. Malinao, Albay. Not confirmed in nearby or any other PA.
16	*Alcalus mariae* Palawan Eastern Frog	EN	NI	Known from Mount Balabag, in the Mantalingahan mountain range in Palawan. Also found in Mt. Bulanjao and the rest of the tip of southern mainland Palawan. [Note: During review of the report a participant pointed out that Mt Mantalingahan is a protected area.]
17	*Philautus schmackeri* Schmacker's Tree Frog	EN	VU	Also known as Mindoro Bush-frog. [Note: During review of the report a participant pointed out that it is present in Mts Iglit-Baco which is a Protected Area]
18	*Crateromys schadenbergi* Luzon Crateromys	EN	VU	DENR CAR claimed records in Upper Agno River Basin Resource Reserve
19	*Robsonius rabori* Cordillera Ground-warbler	VU	VU	Documented in north of the Cordillera Central, near the town of Adams, Ilocos Norte. [Note: During review of the report a participant pointed out that it is present in Kalbario-Patapat which is a Protected Area]
20	*Ninox reyi* Sulu Boobook	VU	VU	Restricted range in Sulu archipelago. No PAs in Sulu.
21	*Buceros mindanensis* Southern Rufous Hornbill	VU	NI	Split from *B. hydrocorax* which is a threatened species. [Note: During review of the report a participant pointed out that it is present in Mt Malindang, Mt Apo and Mt Kitanglad which are Protected Areas]
22	*Sanguirana aurantipunctata* No Common Name	VU	NI	Luzon (Mt. Palali, Nueva Vizcaya) and Barangay Real and Mt. Mingan, Aurora Province (proposed CH).

The purpose of this working group was to recommend critical sites for the protection of these species, to describe their characteristics and to identify site contact points and stakeholders, as an aid to further discussion and action. In particular, and taking each species in turn, the Group worked through the questions listed below:

- What site(s) or area(s), if adequately protected, could significantly improve the prospects of the species?
- What other threatened species would benefit from this?
- Who are the primary contacts and stakeholders for this site/area?
- Overall, what would be the estimated conservation impact of enhancing protection of this area/site (high/medium/low)?
- Overall, what is the estimated feasibility of making progress on this over the next 5-10 years (high/medium/low)?

In addition to these questions and where time permitted, the Group collated information from participants about the following:

- What is the status of this land (e.g., ownership/zoning etc)?
- How much of the species distribution do we expect to be encompassed by the area?

- What conservation-directed protection or management is already underway in that area and who is doing it?
- What are the biggest challenges involved in protecting that area?
- What else is needed to support this species there?

The following materials were provided to support discussions: Maps showing (potential) distribution overlaps between these and other threatened species; current IUCN Red List database documentation on Distribution, Habitat & Ecology, Threats and Conservation Action in Place and Proposed, for each species; A matrix summarising all IUCN Red List data for these 22 species as well as other threatened terrestrial species of the Philippines, grouped by geographical location.

Key findings from these discussions are summarised in Table 4. Below and a map showing the areas referred to is shown below (Figure 5).

The suggestions made here should be considered preliminary and for use in further discussion with site managers, stakeholders and other relevant agencies.

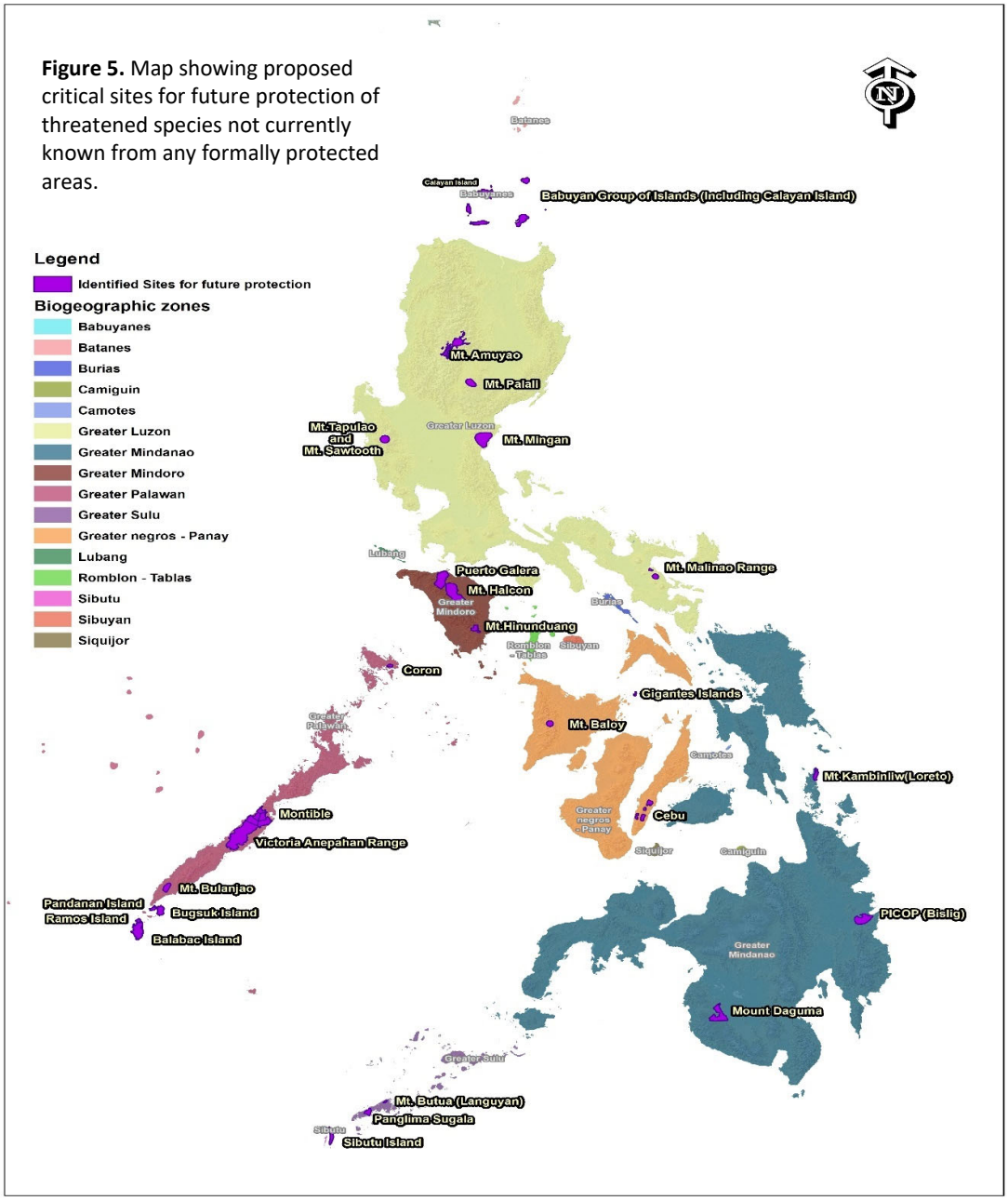


Figure 5. Map showing proposed critical sites for future protection of threatened species not currently known from any formally protected areas.

Table 5: List of proposed critical sites for future protection of species not currently known from any formally protected areas (this list was generated by A2P workshop participants and should not be considered exhaustive). Protection impact and feasibility of establishing it within 5-10 years are each rated either High (H), Low (L) or Medium (M).

No	Site Name	Lat, Long Co-ordinates	Area of proposed polygon	**Target species (BOLD)** and *other threatened species* found on site	Est. Protection Impact	5-10 yr feasibility (High, Med., Low)	Primary contact (site & stakeholders)
Palawan							
1	Victoria Anepaan Mountain Range	9° 30' 23.594" N 118° 24' 49.574" E	1544.17KM²	**Target: *Chrysocolaptes erythrocephalus*** (*Anthracoceros marchei; Cacatua haematuropygia, Chrysocolaptes erythrocephalus; Ficedula platenae; Hystrix pumila; Ichthyophis weberi; Leptobrachium tagbanorum; Manis culionensis; Pelophryne albotaeniata; Philautus everetti; Philautus longicrus; Prioniturus platenae; Ptilocichla falcata; Streptopelia dusumieri*)	H	H	PCSDS, covered local governments
2	Montible	9° 42' 1.565" N 118° 36' 6.655" E	108.61KM²	**Target: *Chrysocolaptes erythrocephalus*** (*Anthracoceros marchei; Cacatua haematuropygia; Chrysocolaptes erythrocephalus; Ficedula platenae; Hystrix pumila; Ichthyophis weberi; Leptobrachium tagbanorum; Manis culionensis; Pelophryne albotaeniata; Philautus everetti; Philautus longicrus; Prioniturus platenae; Ptilocichla falcata; Streptopelia dusumieri*)	M	H	Water district, Katala, USAID project
3	Balabac Island	7° 56' 48.711" N 117° 1' 15.678" E	322.70KM²	**Target: *Tragulus nigricans*** (*Anthracoceros marchei; Chrysocolaptes erythrocephalus; Ducula pickeringii; ;Hystrix pumila; Philautus longicrus; Prioniturus platenae; Ptilocichla falcata; Tragulus nigricans*)	L	L	PCSDS, LGU
4	Mt. Bulanjao	8° 36' 44.894" N 117° 23' 12.486" E	106.17KM²	**Targets: *Alcalus mariae*; *Chrysocolaptes erythrocephalus*** (*Chrysocolaptes erythrocephalus; Ficedula platenae; Prioniturus platenae; Streptopelia dusumieri*)	M	V.L	PCSDS, NGO - ELAC,

5	Ramos [Note: During the review process a participant shared that virtually no intact natural forest left hence low priority.]	8° 5' 58.567" N 117° 1' 36.524" E	32.52KM²	**Target*: Tragulus nigricans*** (*Chrysocolaptes erythrocephalus; Ducula pickeringii; Philautus longicrus; Prioniturus platenae; Ptilocichla falcata*)	L	L	PCSDS, LGU.
6	Pandanan	8° 17' 16.227" N 117° 12' 59.671" E	40.95KM²	**Target: *Tragulus nigricans*** [Note: During the review process it was highlighted by a participant that there is no established population of the Balabac Mouse Deer on Pandanan; no records in camera trap survey of the species.] (*Anthracoceros marchei; Cacatua haematuropygia*; *Chrysocolaptes erythrocephalus; Prioniturus platenae; Streptopelia dusumieri*)	M	M	Katala, PCSDS, BMB.
7	Bugsuk	8° 15' 19.969" N 117° 18' 23.165" E	124.04KM²	**Target: *Tragulus nigricans*** (*Anthracoceros marchei; Cacatua haematuropygia; Chrysocolaptes erythrocephalus; Hystrix pumila; Prioniturus platenae; Streptopelia dusumieri*)	H	H	Jewelmer Corp, PCSDS, BMB, Katala.
8	Coron	12° 2' 7.463" N 120° 13' 29.771" E	29.89KM²	**Target: *Chrysocolaptes erythrocephalus*** (*Anthracoceros marchei; Axis calamianensis; Chrysocolaptes erythrocephalus; Hystrix pumila; Manis culionensis; Prioniturus platenae; Streptopelia dusumieri*)	M	M	IPs, LGUs, NGO - Calamianes Resilience Network.
Luzon							
9	Ifugao & Mountain Province - specifically Mt. Amuyao	17° 1' 41.338" N 121° 5' 5.494" E	141.99KM²	**Target: *Crateromys schadenbergi*** (No other species discussed)	H	H	DENR - CAR, LGUs, NCIP (if ancestral domain).
10	Mt. Palali	16° 24' 9.706" N 121° 15' 10.922" E	125.18KM²	**Target: *Sanguirana aurantipunctata*** (*Ceyx melanurus; Desmalopex leucopterus; Ducula carola; Edolisoma mindanense; Erythrura viridifacies; Geokichla cinerea; Hypothymis coelestis; Muscicapa randi; Nisaetus philippensis; Ophiophagus_sp_nov_Luzon; Prioniturus luconensis; Ramphiculus marchei; Streptopelia dusumieri*)	M	H	LGUs, DENR - Region II, Local NGOs – Friends.
11	Mt. Mingan	15° 32' 23.418" N 121° 24' 38.217" E	393.61KM²	(*Ceyx melanurus; Ducula carola; Edolisoma mindanense; Eonycteris robusta; Erythrura viridifacies; Geokichla cinerea; Hypothymis coelestis; Muscicapa randi; Nisaetus philippensis; Ophiophagus*_sp_nov*; Luzon; Platymantis sierramadrensis; Platymantis taylori; Prioniturus luconensis; Ramphiculus marchei)*	H	H	DENR is taking steps already to declare the area as Critical Habitat.

12	Mt. Malinao, Albay Province	Site 1 13° 24' 51.625" N 123° 36' 9.325" E	57.23KM²	**Target*: Platymantis diesmosi*** (*Ceyx melanurus; Cyornis camarinensis; Ducula carola; dolisoma mindanense; Erythrura viridifacies; Geokichla cinerea; Hypothymis coelestis; Muscicapa randi; Nisaetus philippensis; Ophiophagus_sp_nov_Luzon; Platymantis diesmosi; Rusa marianna; Streptopelia dusumieri*)	?	?	Check with JC Gonzalez..
		Site 2 13° 30' 57.139" N 123° 32' 19.637" E	13.74KM²	As above	?	?	Check with JC Gonzalez.
	Mt. Tapulao & Mt. Sawtooth	15° 31' 57.233" N 120° 9' 34.470" E	123.59KM²	(*Ceyx melanurus; Desmalopex leucopterus; Ducula carola; Edolisoma mindanense; Erythrura viridifacies; Geokichla cinerea; Hypothymis coelestis; Muscicapa randi; Nisaetus philippensis; Ophiophagus_sp_nov_Luzon; Platymantis montanus; Prioniturus luconensis*)	?	?	
Dinagat							
13	Mt. Kambinlio, Loreto Municipality	10° 21' 15.482" N 125° 38' 23.620" E	84.05KM²	**Targets: *Podogymura aureospinula, Batomys russatus, Crateromys australis.*** *(Buceros mindanensis; Desmalopex leucopterus; Ficedula basilanica; Gallicolumba crinigera; Hypothymis coelestis; Limnonectes diuatus; Otus gurneyi; Sarcophanops steerii)*	H	H	Provincial govt of Dinagat working to establish watershed protection, DENR - Region 13.
Mindoro							
14	Mt. Halcon	13° 9' 39.778" N 121° 2' 4.316" E	468.80KM²	**Target: *Philautus schmackeri*** (*Desmalopex microleucopterus; Ducula carola; Edolisoma mindanense; Geokichla cinerea; Leptobrachium mangyanorum; Ninox mindorensis; Nisaetus philippensis; Philautus schmackeri; Prioniturus mindorensis; Pulchrana mangyanum; Rusa marianna; Streptopelia dusumieri; Sus oliveri*)	H	M	DENR - Region 4B, Provincial govt., IPs.
15	Mt. Hinunduang	12° 36' 22.673" N 121° 18' 49.523" E	79.27KM²	**Target: *Philautus schmackeri*** (Ducula carola; Edolisoma mindanense; Geokichla cinerea; Ninox mindorensis; Nisaetus philippensis; Prioniturus mindorensis; Pulchrana mangyanum; Rusa marianna; Streptopelia dusumieri)	H	M	DENR - Region 4B, Provincial govt., IPs.

16	Puerto Galera (Mt. Malasimbo area)	13° 21' 59.345" N 120° 52' 49.564" E	344.43KM²	**Target: *Philautus schmackeri*** (*Desmalopex microleucopterus; Ducula carola; Edolisoma mindanense; Geokichla cinerea; Leptobrachium mangyanorum; Ninox mindorensis; Nisaetus philippensis; Philautus schmackeri; Prioniturus mindorensis; Pulchrana mangyanum; Rusa marianna; Streptopelia dusumieri; Sus oliveri*)	M	M	DENR - Region 4B, Provincial govt., IPs, Municipal govt. environmental office.
Panay							
17	Mt Baloy	11° 8' 33.372" N 122° 15' 35.681" E	70.02KM²	**Target: *Crateromys heaneyi*** (*Chrysocolaptes xanthocephalus; Dicaeum haematostictum; Edolisoma ostentum; Erythrura viridifacies; Nyctimene rabori; Otus nigrorum; Platymantis panayensis; Rhabdornis rabori; Streptopelia dusumieri*)	H	?	PhilBio, PhilinCon.
Gigantes							
18	Carles, Iloilo: South Gigantes	11° 35' 16.678" N 123° 20' 16.454" E	5.92KM²	**Target: *Platymantis insulatus*** (*Gekko gigante; Platymantis insulatus; Streptopelia dusumieri*)	?	?	MENRO Carles LGU; local barangay officials (L E. Afuang; N. Grenhawk; Arvin Diesmos)
	North Gigantes,	11° 37' 28.023" N123° 20' 57.011" E	4.77KM²	As above	?	?	MENRO Carles LGU; local barangay officials (L E. Afuang; N. Grenhawk; Arvin Diesmos)
	Bulubadiangan,	11° 36' 34.536" N 123° 21' 38.900" E	0.06KM²	As above	?	?	MENRO Carles LGU; local barangay officials (L E. Afuang; N. Grenhawk; Arvin Diesmos)
	Cabugao	11° 34' 5.023" N 123° 20' 51.044" E	0.17KM²	As above	?	?	MENRO Carles LGU; local barangay officials (L E. Afuang; N. Grenhawk; Arvin Diesmos)

Babuyan							
19	All Babuyan island including Calayan	19° 8' 4.564" N 121° 36' 12.066" E	614.58 KM²	**Target: *Gallirallus calayanensis*** (*Lycodon chrysoprateros; Pteropus dasymallus*)	H	H	ISLA, (Check with Cynthia Layusa).
	Calayan Island	19° 19' 30.640" N 121° 27' 29.786" E	193.91KM²		?	?	
Sulu							
20	Sibutu	4° 46' 50.477" N 119° 28' 33.150" E	107.68KM²	**Targets:** *Phapitreron cinereiceps; Gallicollumba menagei, Prioniturus verticalis, Anthrococeros montani, Ninox reyi)*	M	?	PhilBio; Balete Conservancy, MSU- Tawitawi.
21	Languyan	5° 18' 24.317" N 120° 9' 55.412" E	13.44KM²	**Target: *Geokichla interpres*** (*Brachymeles vermis*)	H	?	PhilBio; Balete Conservancy; MSU- Tawitawi.
22	Panglima Sugala	5° 8' 46.867" N 119° 56' 57.991" E	69.56KM²	**Target: *Ducula pickeringii*** (*Edolisoma mindanense; Gallicolumba menagei; Geokichla interpres; Hypothymis coelestis; Ninox reyi; Nycticebus menagensis; Oligodon meyerinkii; Phapitreron cinereiceps; Picoides ramsayi; Prioniturus verticalis; Ramphotyphlops suluensis; Streptopelia dusumieri*)	H	?	PhilBio; Balete Conservancy; MSU- Tawitawi.
Cebu							
23	Alcoy-Boljoon (mt. Nugas-Lantoy)	9° 41' 34.569" N 123° 26' 22.475" E	51.62KM²	**Target: *Phapitreron frontalis*** (*Brachymeles cebuensis; Chloropsis flavipennis; Erythrura viridifacies; Ninox rumseyi; Nyctimene rabori; Phapitreron frontalis; Streptopelia dusumieri; Todiramphus winchelli*)	H	H	Ongoing effort started by provincial environment office and DENR.
	Dalaguete	9° 49' 22.769" N 123° 27' 56.283" E	16.62KM²		?	?	?
	Argao	9° 55' 8.373" N 123° 31' 39.221" E	52.95KM²		?	?	?
	Mt. Kangbulagsing (Alegria-Malabuyoc)	9° 42' 36.475" N 123° 21' 52.060" E	26.22KM²		?	?	?

Mindanao							
25	PICOP (Near Tinuy-an Falls Protected Landscape) - Surigao del sur, Bislig	8° 7' 22.706" N 126° 14' 29.949" E	287.79KM²	**Target: *Buceros mindanensis*** (*Actenoides hombroni; Buceros mindanensis; Ceyx mindanensis; Chloropsis flavipennis; Ducula carola; Edolisoma mindanense; Ficedula basilanica; Gallicolumba crinigera; Hypothymis coelestis; Mulleripicus fuliginosus; Nisaetus pinskeri; Otus gurneyi; Phapitreron brunneiceps*)	H	M-L	Provincial govt., Wild Bird Club of the Philippines, DENR - Region 13.
26	Mt. Daguma, (Municipality Sen. Ninoy Aquino (SNA))	6° 38' 37.705" N 124° 24' 20.731" E	323.59KM²	**Target: *Buceros mindanensis*** (*Buceros mindanensis; Ceyx mindanensis; Chloropsis flavipennis; Ducula carola; Edolisoma mindanense; Eonycteris robusta; Ficedula basilanica; Gallicolumba crinigera; Hypothymis coelestis; Mulleripicus fuliginosus; Nisaetus pinskeri; Otus gurneyi; Phapitreron brunneiceps; Pitta steerii; Rusa marianna*)	H	M-L	Municipal LGU, Philippine Eagle Foundation, Wild Bird Club of the Philippines.

WORKING GROUP 2 REPORT: REPTILES ASSESSED AS THREATENED OR DATA DEFICIENT

INTRODUCTION

GROUP 2 considered in detail the conservation needs of the 8 reptile species recently categorised as CR, EN and the 58 categorised as DD. DD species were a focus because analyses have shown this category to include a disproportionate number of threatened taxa. The species included in discussions are shown in Tables 6. and 7. below.

In addition, because it housed much of the relevant expertise, GROUP 2 also took responsibility for discussing the 19 threatened amphibian species initially assigned to GROUP 3 (and reported on in that section). Though initially targeted, VU species were not able to be addressed, though recommendations for action discussed during the assessment workshops will be published via the IUCN Red List website.

THREATENED REPTILE SPECIES (CR, EN)

Full descriptions of species distributions, habitat and ecology, population data, threats, and conservation actions in place and recommended, are provided in the IUCN Red List database (https://www.iucnredlist.org/) and are not duplicated here. The purpose of GROUP 2 discussions was to: review recommendations provided for threatened species and recommend next steps with, wherever possible, agencies and individuals that might be willing and able to take those steps (resources permitting). Where possible, species with similar needs were grouped to create efficiencies.

Table 6. Terrestrial Reptile Species of the Philippines recently categorised as threatened (CR, EN or VU) by the IUCN Red List assessment process (shading indicates not known from any protected areas).

Distribution	Scientific Name	IUCN Cat.	In at least one Protected Area?
Central Visayas	*Gekko gigante*	VU	No
	Brachymeles mapalanggaon	VU	No
	Brachymeles cebuensis	VU	Yes
East Visayas	*Lycodon ferroni*	VU	Yes
West Visayas and Mindoro	*Parvoscincus sisoni*	EN	No (only proposed)
	Varanus mabitang	EN	No (only proposed)
	Pseudorabdion talonuran	VU	No (only proposed)
	Hologerrhum dermali	EN	Yes
Palawan & Mindoro	*Ophiophagus* sp. nov. *'Luzon'*	VU	Yes
Greater Luzon	*Pseudogekko hungkag*	EN	Unknown, but probable
	Varanus olivaceus	VU	Yes
	Parvoscincus banahaoensis	VU	Yes
	Parvoscincus beyeri	VU	Yes

Distribution	Scientific Name	IUCN Cat.	In at least one Protected Area?
	Lycodon chrysoprateros	EN	No (changed from CR post workshop)
	Trimeresurus mcgregori	EN	Yes
	Parvoscincus tikbalangi	CR	Yes
	Pseudogekko isapa	VU	Yes
	Pseudogekko sumiklab	EN	Yes
Greater Mindanao	*Pseudogekko brevipes*	VU	Yes
	Opisthotropis alcalai	DD	Yes (changed from EN post workshop)
Sulu Archipelago	*Oligodon meyerinkii*	VU	Unknown
	Ramphotyphlops suluensis	VU	No
	Brachymeles vermis	VU	Unknown (changed from EN post workshop)

The following questions were posed for each species:

1) Are the immediate (5-10 year) conservation needs of this **species already adequately covered** by a formal action plan or by a recognised programme of activity? (IF YES, the remaining questions were not progressed)
2) As currently described in the IUCN Red List text on the species, **are the proposed actions enough** to make a positive impact on species conservation *in situ*, within the next 10 years? If not, what else is needed?
3) Are the proposed actions likely to be implemented? If implemented, will they act quickly enough to prevent further declines? If not, **is more intensive management of populations required** to safeguard the species or support its recovery? (E.g. *in situ* provision of artificial breeding or nesting habitat, corridor restoration or translocations to support genetic and demographic health, *ex situ* population management for insurance, reintroduction, head-start programmes, conservation-directed research etc.);
4) What kinds of planning are needed? E.g. For species not in any protected areas – **are there critical sites that should be proposed for protection**? Do management plans exist, for the **Protected Areas or major habitats** where the species occurs? Is the species given explicit attention in those plans? Is there **a complex threat or issue** affecting this and other species that would benefit from targeted planning for action (e.g., trade, disease, invasive species, human-wildlife conflict, the need to sustain livelihoods)? Is the species sufficiently high profile, sufficiently representative of the needs of multiple other taxa, or does it have sufficiently complex or unusual needs, to warrant its own **species-specific plan**?
5) Who are the **potential leads, collaborators, and stakeholders** in planning & action for this species?
6) Is there an organisation that does or could act as **a champion for this species**?
7) **Should anything be added to or deleted from the IUCN text on Conservation Actions In Place or Proposed?**

The responses from participants are captured below, with species ordered by threat category.

CRITICALLY ENDANGERED REPTILE SPECIES (1)

PARVOSCINCUS TIKBALANGI

Discussion:

Not included in DENR Assessment. The area is protected on paper, but ongoing timber poaching in lowland forest and other illegal activities degrade/remove forest. Some forest fragments where collections were made are already destroyed. Current and proposed conservation activities will not be sufficient to make a positive impact on the species within the next 10 years. The species is reliant on cool forest stream environments beneath forest canopy and animals removed from this habitat rapidly desiccate and die in exposed areas. Further, this species relies on a specific microhabitat (within 10 cm of water in suitable areas). The species can survive at the edge of slash-and-burn as long as there are closed-canopy, high gradient forest streams. Nothing else in this part of the Philippines is dependent on this microhabitat to this degree, but there are three other species in this group in Luzon with similar requirements, also *Tropidophorus*.

Microhabitat protection for this species is one of the most urgent priorities, as the type locality population is likely on the verge of extinction or already gone.

Recommended next steps:

- An action plan for closed canopy specialists. An action plan is needed for cool refuge-dependent amphibians and reptiles, including cloud frogs and all *Parvoscincus* that rely on closed canopy habitats with cool riparian areas, focusing on preserving these specific microhabitats;
- ASEAN Centre for Biodiversity, ASEAN Heritage Park (AHP) programme. This designation could be recommended for the Northern Sierra Madre Natural Park, which is likely to promote action for more effective conservation among local politicians. Declaring a Heritage Park can be quite rapid, and existing documents could be used to support this. AHP designation seems likely and can potentially occur in less than a year, though it is unclear if this will be quick enough, at least at the type locality (species might be more widespread), where it may already be gone or close to it. [Note that restoring gallery forest with the right conditions requires mature, closed canopy forest and clean water sources – likely to take longer];
- KBA designation/expansion.

Potential leads and collaborators:

- Mabuwaya Foundation, Isabela State University is a potential champion. It is focused on riparian protection in this part of the mountain range. Isabela State University also has an outreach program that focus on environmental conservation;
- CI used to be active in this area. It is not known whether they still are;
- Local schools and universities could play a role. This area is used as a field survey site for students.

ENDANGERED REPTILE SPECIES (9)

LYCODON CHRYSOPRATEROS

NOTE: Category changed post workshop from CR to EN

Recommended next steps:

- Research into the taxonomic status is urgently required to verify that this is a distinct species;
- The species is not known to be covered by a plan. Dalupiri is a private island and it is unlikely. Need to follow up on the status and use of the island and learn about the landowner's interests. A management plan could be developed within a 5-10 year timeframe. Landowners can be encouraged to declare Critical Habitat as part of a management plan;
- Raise awareness of the presence of an endemic snake on this island.

Potential implementers:

- DENR to lead on reaching out to the landowner;
- Check with Carl Oliveros – potential champion.

LUZON

TRIMERESURUS MCGREGORI

Recommended next steps:

- A focused plan to control harvesting, as general habitat management is unlikely to help against the identified threats. It was not known to participants whether any provision has been made for species-targeted conservation;
- Enforcement of legislation and training of customs officers;
- Research to understand biology and population status.

Potential leads and collaborators:

None identified.

PSEUDOGEKKO HUNGKAG

Discussion:

There are plans for PAs but the presence of this species in them is unconfirmed. Local government plans for unprotected forests are unlikely to highlight this newly described species. Species-specific planning is not usually part of these, due to lack of both public awareness and local capacity for herps especially. Protection is required for remnant lowland habitat, and creation of habitat corridors is important, as the species is a likely forest obligate.

Recommended next steps:

- Survey remnant lowland patches where the species may occur to identify Critical Habitat/populations (see details above);
- Measures are unlikely to be taken for the benefit of the gecko, but the species may benefit from lowland habitat protection/Critical Habitat designation implemented for Philippine Warty Pig or flying fox. Consider connecting with plans/activities for those species;
- Promote alternative livelihood projects to provide alternatives to removing remnant forest.

Potential leads and collaborators:

Local government, landowners, potential universities (Ateneo de Naga University, Bicol University, Partido State University could be a candidate). No obvious champions were identified.

PSEUDOGEKKO SUMIKLAB

Discussion:

The species occurs in PAs but it is unknown whether the species is explicitly covered by any relevant plans. PA management plans provide for general habitat protection (e.g. there is one for Mt. Mayon Natural Park), but do not necessarily include specific provisions for species. There is a need to evaluate the effectiveness if not already done. Livelihood projects are needed to provide alternatives to removing remnant forest.

Recommended next steps:

No specific next steps were recommended

Potential leads and collaborators:

DENR, Local Government Unit, Academia - Bicol University is a good candidate for the Academe.

SULU

BRACHYMELES VERMIS

Note: changed from EN to VU post workshop

Discussion:

Some areas in central Jolo and Tawi-Tawi are not subject to active disturbance due to falling within Abu Sayef territory. This may benefit the species, but it does not count as an action plan or programme of activity. It has been found in remnant forest where habitat remained as recently as 2 years ago with no intensive use.

Recommended next steps:

Find out more about what is being done and what is needed:

- Check with Nikki Realubit, who found a specimen in a denuded area near the coast in Tawi-Tawi, check also with her about whether that municipality has management plans that would adequately cover the species;
- Species may benefit from work on species like the Sulu hornbill. Check with Lisa Paguntalan and the Philippines Biodiversity Conservation Foundation, Inc.;
- Engage with Bangsamoro Autonomous Region in Muslim Mindanao (BARMM) and local government

Potential leads and collaborators:

None identified.

ZAMBOANGA

OPISTHOTROPIS ALCALAI

Note: changed to from EN to DD post workshop but discussions left in the section.

Discussion:

The species is currently known from the relatively well managed Mount Malindang Natural Park and the locality in the Municipality of Naawan will be proposed as a conservation site. Malindang should have an action plan, and there should be an effectiveness assessment (needs referring to National Parks division). It is unknown whether species-specific action is provided for in this. However, if the plan is effective at restricting habitat loss the species should be adequately covered. Species belongs to a group of taxa (5-6 species) restricted to the southern tip of Zamboanga from 0-200m and may be entirely endemic to Pasonanca Natural Park (which is managed as a watershed).

Recommended next steps:

None were considered needed apart from further field studies to determine whether the species occurs more widely on the Zamboanga Peninsula.

Current leads and collaborators are:

Pasonanca Management board, other local authorities in the Pasonanca watershed area, Zamboanga City Water District.

WEST VISAYAS AND MINDORO

PARVOSCINCUS SISONI

Discussion:

Currently in an area proposed for protection but not yet formally protected. Habitat protection is the most important thing including retention of canopy cover and suitable soil structure. Soil conservation needed – Panay seems to have several semi-fossorial skinks. The type locality is divided between different municipalities and management needs to incorporate this (as for *dermali).*

Recommended next steps:

- Monitoring to prevent disturbance (but capacity and funds are lacking);
- Protection for Madja-as, Mt. Baloy, & Mt. Nangtud;
- Research into alternative livelihood options such as chickens, pigs etc.

Potential leads and collaborators:

None identified (see also *P. dermali*).

VARANUS MABITANG

Discussion:

Intensive management of populations is likely to be needed but it would need an active champion. There is too little information about breeding biology or reproductive habitat to implement these measures at present. It may not be plausible – 3-4 years of field research have not obtained these data. It occurs in Lowland rainforest. Follow up with Maren for site names of particular importance. There is a need to confirm occurrence in Dalanas and Aklan River Watershed Forest Reserves. Other possible areas would be Ibajay and Panakuyan river watershed forest reserves, while Jalaur and Maasin Watershed Forest Reserves are considered unlikely.

[Text provided by Maren Gaulke]. "*The real confirmed (actual sightings) areas of the occurrence of Varanus mabitang so far are: Ibajay-Sebaste-Pandan Area (northern part of the PMR, Aklan and Antique Provinces), and most probably Lambunao-Calinog Area (more southerly part of PMR, Iloilo Province). The latter area is confirmed through two or three Mabitang specimens brought to the Mariit Conservation Park by hunters, who accordingly caught them in the Calinog Mountain Area).*

As far as I know there are projects on the survey and protection of hornbill nest-holes along the northern parts of the PMR (especially the Dulungan, Rhabdotorrhinus waldeni), which occurs in the same areas as the Mabitang. However, since the start of the pandemic I have no more recent information about what projects are ongoing and what had to be stopped because of organisational or financial reasons.

Varanus mabitang is not given any explicit attention in any of the existing programs. There is still (illegal) slash and burn farming for livelihoods, however, this is in degraded or secondary growth. If the primary forest is not being degraded by (illegal) loggers, small scale farmers cannot easily enter. There is also some Ilegal wildlife hunting in the forests including of V. mabitang. In former projects (Hornbill), the PhilinCon engaged people from hinterland barangays actively as nest-hole guards and forest rangers, and in collection of seeds from forest trees for cultivation and reforestation projects. Several of the people working with me on my previous Mabitang field research are very knowledgeable regarding V. mabitang.

Varanus mabitang is one of the "Big Five" of Panay, a well-known flagship species of the area. At the same time it could act as an umbrella species: the lowland rainforests of the PMR are home to many obligate forest dwellers, some of them other Panay endemics (e.g. the gecko Luperosaurus corfieldi, the snake Hologerrhum dermali, the Panay Cloud Rat, Crateromys heaneyi), othes endemics of the West Visayas, who are rare throughout (e.g. Rhabdotorrhinus waldeni, Lipinia rabori (DD), Platymantis negrosensis, Visayan Warty Pig, Visayan Spotted Deer), and others".

Potential leads and collaborators:

Local DENR offices (CENRO from Culasi and others), Indigenous Peoples groups, PhilinCon could cooperate in planning and action for this species through Maren Gaulke and co-workers.

Additional information provided by workshop participant at the time of report review: New project funded by Darwin Initiative and executed by Bristol Zoo in the area could be a good resource for updated land-use and community impact data, as well as being points of action for any restoration or surveying wanted in the area.

HOLOGERRHUM DERMALI

Discussion:

There is no action plan for the species. It occurs in North West Panay Natural Park and appears to occur in Mt. Guiting-Guiting. A (presumed) healthy pop in the Central Panay area would benefit from habitat protection. In

particular, designation of Critical Habitat in interim (e.g. especially Mt Madja-as as the type locality in case this turns out in future to be a species complex) – this must include lowland rather than just montane areas. The habitat of this species is covered by two (potentially three, including Sibuyan) different municipalities, which may introduce complexity to habitat protection and management. The species is typical of lowland forest species and needs the same protection as other lowland taxa.

Recommended next steps:
Declaring an area of Critical Habitat is the most important immediate action (within a year), a DENR designation, and the establishment of a local conservation area (managed by local government), as habitat protection will take longer (3-4 years). This will allow resources to be set aside for implementation of plans. Also allows enforcement of restrictions on harvesting.

Potential leads and collaborators:
DENR, the surrounding municipal authorities and Indigenous Peoples groups

DATA DEFICIENT SPECIES

For DD species, GROUP 2 reviewed data gaps and the obstacles to filling them over the next 5-10 years.

Capacity: there is a need to increase capacity and awareness, especially for skinks, which are difficult to identify in the field. Skills in preparing specimens are also lacking, especially in areas that are relatively unstudied. Training courses to train (in particular) DENR field personnel in surveys would be valuable as they have access to otherwise hard to survey areas. Photo ID guides for specific regions are important to prepare, with details and keys, perhaps web resources.

Taxonomy: outside experts are needed, and local training in taxonomy needed. It is likely to be possible to engage early-career researchers within the next 5-10 years.

Unsurveyed - distribution, ecology & threats not surveyed: funding is needed for distributional and ecological surveys, including of threats. There is sufficient expertise to achieve rapid progress here if funds can be made available. Management policies of protected areas need to accommodate the biodiversity research needs of early career researchers (enabling policies).

Recommended next steps:
Convene a herpetological symposium to discuss and coordinate resolving data gaps, with groups present who could facilitate that if resources were available. This could be organised by PhilBio or the Biodiversity Conservation Society of the Philippines. Advertise the “Professional Master’s in Wildlife” course of ABD-UPLB to all field researchers in the country. A program designed to upskill and re-tool wildlife/environment personnel on-ground. The program targets field workers, wardens, researchers of DENR, PENRO, MENRO and NGOs.

Potential leads, collaborators and stakeholders.
Capacity: Academic institutions (stakeholders), UPLB, DENR-BMB. National Museum of the Philippines. KU (potential lead). CI-Philippines and international NGOs (collaborators), potentially WCS.

Taxonomy: KU, UPLB (leads) Association of Systematic Biologists of the Philippines.

Unsurveyed/Ecology unsurveyed: species funding support - DENR-BMB, DOST, USAID, international NGO e.g., Re:Wild, WCS. MbZ, Conservation Leadership Programme, CEPF, NatGeo, Rufford Foundation, Darwin Fund. IUCN SSC Specialist Groups may have an interest in helping and promoting collaboration with local scientists. Consult Tom Brooks (IUCN) re leads.

Table 7. Terrestrial Reptile Species recently categorised as Data Deficient (DD) by the IUCN Red List assessment process.

No.	*Name*	FAMILY	Main data gap and the reason
	Bicol		
1	*Cerberus microlepis*	HOMALOPSIDAE	Uncertainty over identity of recent records. Plus molecular data (Bernstein et al. 2021) suggest it is not a valid species.
2	*Lipinia vulcania*	SCINCIDAE	No recent data. Only 4 specimens from very different areas.
3	*Malayotyphlops collaris*	TYPHLOPIDAE	No recent data, unknown threats, & needs specialised survey techniques.
4	*Malayotyphlops ruficaudus*	TYPHLOPIDAE	Uncertain provenance, taxonomy.
	Central Luzon		
5	*Gekko carusadensis*	GEKKONIDAE	Threats unclear, no data since 2010.
6	*Brachymeles isangdaliri*	SCINCIDAE	Unclear threats.
7	*Parvoscincus agtorum*	SCINCIDAE	Described 2013, holotype only.
8	*Parvoscincus aurorus*	SCINCIDAE	Recently described, poorly known.
9	*Parvoscincus boyingi*	SCINCIDAE	Threats unclear.
10	*Parvoscincus hadros*	SCINCIDAE	Threats unclear.
11	*Malayotyphlops manilae*	TYPHLOPIDAE	Provenance.
	North Luzon		
12	*Lycodon bibonius*	COLUBRIDAE	Threats, ecology, poorly known.
13	*Lycodon solivagus*	COLUBRIDAE	3 specimens, unknown threats.
14	*Myersophis alpestris*	CYCLOCORIDAE	Insufficient data - 3 specimens.
15	*Rhabdophis barbouri*	NATRICIDAE	Two, century-old specimens.
16	*Brachymeles wrighti*	SCINCIDAE	May not have been found since description.
17	*Parvoscincus duwendorum*	SCINCIDAE	Only recently described.
18	*Parvoscincus igorotorum*	SCINCIDAE	2 specimens, 20 years ago.
19	*Parvoscincus lawtoni*	SCINCIDAE	Very secretive, hard to detect.
20	*Acutotyphlops banaorum*	TYPHLOPIDAE	Fossorial – hard to survey - Types only.
21	*Malayotyphlops andyi*	TYPHLOPIDAE	2016 description, no recent data.
22	*Malayotyphlops denrorum*	TYPHLOPIDAE	Holotype only, 2016 description, unclear if known site exposed to threats or sensitivity of the snake.
	Luzon		
23	*Luperosaurus angliit*	GEKKONIDAE	AOO and threats unclear.
	Palawan		
24	*Calamaria palavanensis*	CALAMARIIDAE	2 specimens, unclear sets.
25	*Lycodon philippinus*	COLUBRIDAE	Ecology and threats unknown.
26	*Oligodon perkinsi*	COLUBRIDAE	Poorly-known, highly secretive.
27	*Gekko gulat*	GEKKONIDAE	Type specimen only.
28	*Luperosaurus palawanensis*	GEKKONIDAE	Three specimens, area not resurveyed since 1961.
29	*Parvoscincus palawanensis*	SCINCIDAE	Not recorded since described.
	West Visayas & Mindoro		
30	*Calamaria alcalai*	CALAMARIIDAE	3 specimens, only described 2020.
31	*Pseudorabdion montanum*	CALAMARIIDAE	Hard to detect, ecology unclear.

32	*Lipinia rabori*	SCINCIDAE	Ecology unclear.
33	*Malayotyphlops canlaonensis*	TYPHLOPIDAE	Very little data.
34	*Eutropis sibalom*	SCINCIDAE	Only described in 2020.
	Central Visayas		
35	*Dryophiops philippina*	COLUBRIDAE	Too few data to judge against Criteria. Unsurveyed.
36	*Hemiphyllodactylus insularis*	GEKKONIDAE	Taxonomy makes EOO, ecology and threats impossible to characterise
37	*Malayotyphlops hypogius*	TYPHLOPIDAE	4 specimens, distribution unclear.
	East Visayas		
38	*Levitonius mirus*	CYCLOCORIDAE	2020 description, unsurveyed area.
39	*Eutropis islamaliit*	SCINCIDAE	2020 description, unclear ecology, threats.
40	*Ramphotyphlops marxi*	TYPHLOPIDAE	Single specimen only.
41	*Pseudogekko ditoy*	GEKKONIDAE	Extent of threats and tolerance to them unknown.
	East & Central Mindanao		
42	*Calliophis salitan*	ELAPIDAE	True distribution and ecology unknown, 2018 description.
43	*Brachymeles tiboliorum*	SCINCIDAE	Area inaccessible to surveys, lack of capacity for skink surveys.
44	*Lipinia semperi*	SCINCIDAE	Single specimen, extremely difficult to survey without specialist techniques.
45	*Sphenomorphus diwata*	SCINCIDAE	No recent data, despite surveys, lack of capacity, not clear how to ID.
	Sulu		
46	*Calamaria joloensis*	CALAMARIIDAE	2 specimens, not many surveys, exposure/sensitivity to threats unclear.
47	*Calliophis suluensis*	ELAPIDAE	Threats unclear.
48	*Brachymeles suluensis*	SCINCIDAE	4 specimens in 100 years, ecology and threats unknown, lack of capacity to survey skinks.
49	*Brachymeles vindumi*	SCINCIDAE	Lack of surveys, no data on ecology or threats.
	Zamboanga		
50	*Luperosaurus joloensis*	GEKKONIDAE	Ecology unknown.
51	*Pseudogekko chavacano*	GEKKONIDAE	No information on impacts of past or future threats.
52	*Eutropis alcalai*	SCINCIDAE	Only recently-described, poorly-known ecology.
53	*Lipinia zamboangensis*	SCINCIDAE	Holotype only (1963).
54	*Pseudorabdion ater*	SCINCIDAE	Historical records only.
	Nonendemics		
55	*Dasia semicincta*	SCINCIDAE	Historical records only.

WORKING GROUP 3 REPORT: OTHER THREATENED TERRESTRIAL VERTEBRATES OF THE PHILIPPINES

INTRODUCTION

GROUP 3 considered all other threatened terrestrial vertebrates of the Philippines that were not addressed by GROUPs 1 or 2, and in particular:

- species with no known plans, or programmes of conservation action in place;
- species that may need more intensive care, in addition to other protections, because they are at risk to the effects of small population size or a high degree of population fragmentation.

The pre-workshop analysis for this subset of species began with species identified in the IUCN Red List as globally threatened (i.e. CR, EN or VU). Species with most of their distribution outside the Philippines, and migratory species that are non-breeding in the Philippines, were excluded from this list, leaving 160 species. Of these, 22 were not known from any protected areas and were considered by GROUP 1 and 22 were reptiles recently assessed as threatened and were considered by Group 2. Of the remaining species:

- 11 were found to have their own dedicated plan of action;
- an additional 22 have targeted action recommended in the 2016 NAPERSEP document;
- 8 more have neither of the above but IUCN Red List records indicate that there is some targeted action for the species in the Philippines.

These species were considered a lower priority for Group 3 discussions.

Of the remaining 80 species, 17 are mammals, 42 are birds, 19 are amphibians. From IUCN Red List data:

- 6 species have no conservation action in place or proposed;
- 70 species have conservation action proposed but no indication of implementation;
- 22 species have small or fragmented populations[1] that may therefore be at risk to small population effects, even where other threats have been effectively mitigated.

Group 3 reviewed the species listed and confirmed that none have plans or programmes of work documented in sources not consulted in the initial analysis. Two species were added at the recommendation of the group and additional known locations were added to the distribution records of three species, as follows:

- *Ducula pickeringi* and *Crateromys australis* added to the list of species for consideration;
- Negros added to distribution record of White-winged Cicadabird;

[1] small population size or highly fragmented as indicated from IUCN Red List Data: estimated mature adults N≤1000; OR Criterion D or D2+VU; OR Criterion C1+CR or EN; OR C2+CR, EN or VU

- Balinasayao Twin Lakes Natural Park added to records of the South Philippine Hawk Eagle and Visayan Scops Owl.

The group then addressed the following questions:

1) Which species (if any) might be good targets for stakeholder-inclusive, participatory single-species planning (e.g. high profile or culturally significant species with unusual or complex needs, or that could provide a good "umbrella" for other species)?;
2) Which species (if any) might benefit from more intensive management *in situ* or *ex situ* because of their small or highly fragmented population?;
3) Which group of species might be suitable for multi-species action & planning (e.g. those likely to benefit from the same kinds of action taken either in the same places or by the same groups of people or organisations)?;
4) Which species could be housed under existing initiatives for other taxa?

Wherever possible, recommendations for planning were accompanied by information on potential leads or champions, and key stakeholders or collaborators. Potential next steps in pursuing these recommendations were also discussed, though it was generally agreed that it would be best to delay any new initiatives until after the May elections.

A summary of the resulting recommendations is provided in Table 3. (Executive Summary), and further details about each project or potential project, are provided below.

Note: Palawan was treated separately from other areas because of the administrative distinction (Palawan has its own wildlife agency, DENR operates in the regions outside).

PROPOSED FUTURE ACTION PLANNING PROJECTS

SINGLE SPECIES PLANS – CALAMIAN DEER STRATEGY AND ACTION PLAN

1.	**Group name/description:**	**Calamian Deer Strategy and Action Plan.**
Situation and rationale for proposed planning project		
Background: This is a flagship species of the Katala Foundation and the Palawan Council for Sustainable Development (PCSD). A conservation programme is active but not currently succeeding. A captive programme is needed but is not in place (a breeding centre is already prepared (with initial capacity for 24 adults plus offspring and potential for additional facilities) and a Wildlife Farming Permit for this has been granted. However, the Provincial Government has not yet issued a permit to capture animals from the Caluit Game Preserve, which is the only available source of individuals (there is another population, but it is small and under pressure, and removal could damage it). The situation is complex and there are political challenges. **Rationale for proposed grouping:** The rationale for pursuing a single-species plan is that though there are two other species of deer with some similarities in threats and conservation needs, there are different jurisdictions and stakeholders involved, as well as some additional challenges specific to the Calamian deer, which makes grouping them for planning less valuable (note also that the species may be on the brink of moving from EN to CR, making the situation more urgent). **Proposed planning scope and focus:** planning should encompass a One Plan Approach (integrating consideration of both *in situ* and *ex situ* needs and opportunities and including all key stakeholders). Creating safe spaces *in situ* for the		

deer is a long-term project but there are places where they were previously and where hunting pressure is lower, which could be early candidates for release. In the meantime, *ex situ* management can offer the benefits of insurance as well as providing a harvestable source of individuals for future releases into secured sites. There is no functional captive population outside the Philippines so *ex situ* management for insurance within the Philippines is particularly important. The planning process would focus on:

***Ex situ* conservation breeding:** within the existing facility of Katala; the potential of the Calauit Game Reserve to harmonise issues around Ancestral Domain and the protected status of the area; other captive programme planning. [Note: During the review of this report it was pointed out that the management system of the Calauit Game Reserve has continuously degenerated. There has been unstable support for the Reserve due to political conflict on whose jurisdiction it belongs: PCSD or LGU (Provincial Government office). Who will take lead in the Action Planning and how shall it be conducted? Dr. Leticia Afuang has direct involvement with Kingfisher's Park (as part of the BOT). For possible conservation initiatives that may be fitting to KP, she can help connect and facilitate. An education program called "School + Home Gardens cum Biodiversity Enhancement Enterprise (S+HGBEE)" that integrates conservation agriculture and biodiversity conservation has been initiated in 2020 and continues to be facilitated in Busuanga Island by KP-KSU-SEARCA-DepEd (MIMAROPA).

***In situ* conservation:** the development of functioning PAs within the historical range of the species (i.e. where the species can be reintroduced). This is a grassland species. Most emphasis now is on forest habitat. E.g. the Culion Island PA was recently de-gazetted (from restricted to multiple-use zoning) so there is now no PA that covers the species' habitat.

Action planning is considered feasible and could help progress the overall initiative. The culture of hunting will make securing areas where the species can thrive challenging. The support and active involvement of the local community, especially IPs, will be essential to success. To help with this the workshop venue should be in Busuanga or on Culion.

	Recommended strategies and rationales	**Potential leads (collaborators & stakeholders)**
1	Instigate a planning process for this species that addresses both *in situ* and *ex situ* measures.	**Katala Foundation & PCSD** (Provincial Government of Palawan, University of the Philippines College of Veterinary Medicine (UP); National Commission Indigenous Peoples (NCIP); Bureau of Animal Industry (for sign-off on animal health); Busuanga Municipality local government; other local communities & IPs; Talarak; Kingfisher Park (could put enclosures there and potentially reintroduce there also); IUCN SSC Deer SG, zoos outside the Philippines (Los Angeles, Phoenix & Berlin Tierpark).
	Main challenges to achieving this	**Opportunities?**
	Permission to initiate the conservation breeding programme.	The species already has an institutional champion (Katala Foundation). With proper management, the species is demonstrably suitable for conservation breeding programmes; international expertise is available.
	Finding the best way to engage with local officials to ensure that this gets the right support.	
	Next steps	**Who could take them**
	Follow-up on permits and initiate planning.	Katala Foundation.

	Engage with local officials.	
	DRAFT 5-10 year GOAL(S)	
	A Strategy and Action Plan for Calamian Deer in place. Start on this after May 2022	

SINGLE SPECIES PLANS – PHILIPPINES SLOW LORIS STRATEGY AND ACTION PLAN

2.	**Group name/description:**	**Philippines Slow Loris Strategy & Action Plan.**
Situation and rationale for proposed planning project		
The Loris has specific ecological needs and does not group readily with other species on the list considered. It may need its own action plan. This question could be posed to the IUCN SSC Primate Specialist Group. Philip Alviola has a colleague in Los Baños who is planning a study of the loris in Tawi-tawi (undergraduate level).		
	Recommended strategies and rationales	**Potential leads** (collaborators & stakeholders)
1	Contact Mindanao State University to gauge interest in leading on planning conservation action for this species. Contact IUCN SSC Primate Specialist Group for advice and to gauge interest in planning for this species.	Mindanao State University might be a possible lead. Philip Alviola (UPLB) has colleagues with contacts there and could help. Matt Ward (Talarak) could help with this also.
	Main challenges to achieving this?	Opportunities?
	Not discussed	Planned study on Tawi-tawi.
	Next steps?	Who could take them?
	Initiate contact with Mindanao State University and Primate SG to gauge interest and feasibility.	Philip Alviola and Matt Ward
	DRAFT 5-10 year GOAL(S)	
	TBD. Start on this after May 2022.	

3.	**Group name/description**	**Philippine Cockatoo (umbrella for cavity-nesters): *Anthracoceros marchei, Chrysocolaptes erythrocephalus, Prioniturus platenae*, plus additional cavity nesting species threatened either nationally or specifically in Palawan.**

Situation and rationale for proposed planning project

Background: There is currently no written overall plan for the Philippine Cockatoo, however, there is a devoted DENR conservation programme in place for this species, as well as translocation within the historical range. For this reason, the Philippine Cockatoo was included in the list of species "already covered by a plan or programme of action" and is not one of the 80 species allocated to Group 3. However, it was flagged as a potential umbrella species for other taxa with similar challenges. There are few recent breeding records for this species outside Palawan (there was a nest protection programme in Pollilo but no recent evidence of breeding). Though there is no range-wide plan for the species, there are local plans for it, and a reintroduction plan (for reintroduction to the Oceanic Philippines).

Rationale for proposed grouping: the Philippine Cockatoo is a high-profile species with an existing programme of monitoring and management that addresses threats common to other cavity-nesting species with overlapping distributions. Some of these are already included in nest monitoring and other conservation management as part of the Philippine Cockatoo Conservation Programme, and there are opportunities to include others.

Proposed planning scope and focus: planning would be largely Palawan focussed and could usefully encompass a range of cavity nesters that overlap with the Cockatoos in distribution and threats, including: the globally threatened species already mentioned; other, nationally listed species; and Palawan listed species that are threatened and, in some cases, widely traded. The planning could include the following topics:

- A review of the reintroduction plan (for outside Palawan) in light of recent typhoon damage;
- Protection and habitat restoration for sites within Palawan;
- A wardening programme involving local communities;
- Education and awareness programmes to support cockatoo-friendly behaviour as birds move into human environments;
- Attention to additional, species-specific needs of cavity-nesting species and other threatened taxa that fall within these sites;
- Possibly Disease Risk Analysis (DRA) to evaluate and mitigate potential risks from Psittacine Beak and Feather Disease (PBFD).

The planning should involve bringing stakeholders together.

	Recommended strategies and rationales	**Potential leads, collaborators & stakeholders**
1	Develop a written national plan for the Philippine Cockatoo and all closely associated cavity nesters.	DENR, PCSD, Katala Foundation, European partners, UPLB, local stakeholders in Palawan. UPCVM & Talarak Foundation are willing to work with parrots covered under this initiative.
	Main challenges to achieving this?	**Opportunities?**

	Time constraints for Katala Foundation.	There is an EAZA population and zoos contribute to the *in situ* work. Birds for reintroduction are already available from currently protected sites (one island is already at capacity and generating surplus) so the work for cavity nesters under this umbrella can be expanded to other sites.
	Next steps	**Who could take them**
	Publish key data that will so that it is available for planning).	Katala Foundation.
	DRAFT 5-10 year GOAL(S) for this group	
	Publish key data, hold a planning workshop and develop a written plan.	

UMBRELLA SPECIES PLANS – WEST VISAYAS BIG FIVE AND ASSOCIATED BIRD SPECIES

4.	**Group name/description**	**West Visayas Big Five-Associated Birds (includes: Black-belted Flowerpecker; Yellow-faced Flameback; White Winged Cicadabird**

Situation and rationale for proposed planning project

Background: Conservation strategies were collaboratively developed in 2019 for the West Visayas "Big Five" (Visayan Spotted Deer - *Rusa alfredi*, Visayan Warty Pig – *Sus cebifrons*, Visayan and Rufous-headed Hornbills, *Penelopides panini* and *Rhabdotorrhinus waldeni*, and Visayan Bleeding Heart, *Gallicolumba keayi*). These are intended to form a conceptual bridge between the overarching governmental Philippine Biodiversity Strategy and Action Plan (PBSAP) and Negros Island Biodiversity Strategy and Action Plan (NIBSAP) and the future, detailed operational action plans and actions required to implement these strategies. Local Biodiversity Strategies and Action Plans (BSAPs) developed by all provinces will be important for on-ground activities relating to this (one for Negros Island and additional ones for Palawan provinces). Talarak Foundation has conservation action plans for these five species as part of a community programme currently being piloted in Negros and then to be rolled out across the whole West Visayas, focussing on:

- Reforestation;
- Livelihoods;
- Habitat encroachment, protection of remaining forest cover, especially lowland;
- Community work (preventing poaching, highlighting potential for bird tourism and the importance of these species); and
- Species restoration through conservation translocations.

Rationale for proposed grouping: as a cavity nester, the Yellow-faced Flameback can be captured under the hornbill programme. On Panay the species currently benefits from Haribon projects in Antique and Aklan. The other two species would be expected to benefit from work associated with forest protection and restoration.

Proposed planning scope and focus:

No further planning is envisaged – only the implementation and monitoring of existing strategies and plans.

	Recommended strategies and rationales	Potential leads, collaborators & stakeholders
1	Continue existing programme of implementation	**Talarak Foundation** to lead on West Visayas "Big 5" plan implementation, **DENR** leads on implementing BSAP actions in collaboration with Haribon and PhilBio.
	Main challenges to achieving this	**Opportunities?**
	Bureaucracy challenges and cooperation under Covid.	Plans are already written and underway. An education program called "School + Home Gardens cum Biodiversity Enhancement Enterprise (S+HGBEE)" that integrates conservation agriculture and biodiversity conservation has been initiated in 2021 by Central Philippine State University in partnership with DepEd KP (Dr. Manny Reyes)-KSU-SEARCA. CPSU and DepEd that aims to integrate conservation agriculture and biodiversity conservation into the curriculum and lifestyles of teachers and their students.
	Next steps	**Who could take them**
	As above	As above
	DRAFT 5-10 year GOAL(S) for this group.	
	Not discussed.	

PROPOSED MULTI-SPECIES PLANS – STRATEGY AND ACTION PLAN FOR PHILIPPINES BATS

5.	Group name/description	All Bats of the Philippines (79 species) including 7 from the priority list.

Situation and rationale for proposed planning project

Background: Anson Tagtag (DENR) initiated a plan for flying foxes 3-4 years ago. This project is in its final stages, having gathered input from organisations working with these species such as PhilBio. There is an opportunity now to re-visit and expand this work to cover all 79 species of Philippines bats. A working draft of a broader bat plan was done several years ago and the species to be included have been agreed, but some species (e.g. cave-dwelling bats) are not done as completely yet as flying foxes. There are recent IUCN SSC Red List assessments for all bats. Many of the insectivorous species are Data Deficient, so research is likely to be a significant theme of planning. [Note that there was a 1992 IUCN SSC Action Plan but it is out-of-date and includes few of the species considered in this initiative].

Rationale for proposed grouping:

Bats face broadly similar pressures wherever they occur, much of the groundwork for a large multi-species plan has already been done, and the same group of experts and stakeholders is involved across the taxa included.

Proposed planning scope and focus:

The current initiative to bring together relevant experts to develop a multi-species action plan for 79 species of Philippines bats, will need to include some initial discussions about whether to integrate all bats into a single plan, or to do a separate one for insectivorous bats. Whichever is decided, the plan(s) would include species-specific conservation actions, and planning efforts would address the following:

- Engaging communities around reducing consumption of flying foxes (found to be the number one supplementary source of meat for farmers in some areas and a major issue for bats including Endangered species);
- Disease Risk Analysis (DRA). Bat viruses are an emerging issue that also needs to be incorporated into the planning process – especially the prevention of pathogen transmission. Analyses will follow from results of research being undertaken by the University (Em);
- Education and awareness. These are key issues to be addressed as part of planning. In Palawan, the management of cave resources, including the bats and other fauna, as well as their derivatives, are included in the Cave Management Plans for the specific caves.

	Recommended strategies and rationales	**Potential leads, collaborators & stakeholders**
1	Convene a broad group of bat experts, conservation practitioners and other stakeholders, to develop a multi-species plan for all bats of the Philippines.	Dave Waldien, Pol, PhilBio (Lisa & Godfrey), UP Dilliman (Aloy Duya), UP (Los Baños), DENR-BMB, Univ, Southern Mindanao (Krizler). Friends of the Flying Foxes Inc, (working in the Visayas, actively in Panay). DENR regional officers as the major implementers. MBCFI who are working with a new-found species on Mindoro. The Zoonosis Programme of UPLB, Katala Foundation, Mabuwaya Foundation (working in the Sierre Madre area), Subic Bay Metropolitan Authority Ecology Centre. Stakeholders in Palawan includes the PCSD (which administers cave management plans in Palawan), the BLGU, LGU, and peoples' organisations or neighbourhood associations in which the caves are situated. Haribon also have bat data for the Central Panay Mountains. Nina Ingle (Independent Expert). Local communities in the vicinity of these species and their roosts must be key partners and beneficiaries. Note that there will be a broader set of stakeholders identified in relation to specific species.
	Main challenges to achieving this	**Opportunities?**
	Securing resources to convene experts and develop the plan.	Much of the materials are already available to compile a plan so costs should not be high.
	Next steps	**Who could take them**
	Collate materials available for incorporation into the plan, agree scope and process.	BMB (Anson Tagtag's group).
	Source resources to convene experts and develop the plan.	Neil Cox (IUCN) may be able to advise.
	DRAFT 5-10 year GOAL(S) for this group	

	A conservation strategy and action plan for all Philippines bats. To start after the May elections.

PROPOSED MULTI-SPECIES PLANS – STRATEGY AND ACTION PLAN FOR ENDEMIC RODENTS & SHREWS

6.	**Group name/description**	**Rodents and shrews (to include from the priority list: mice (N=3), a shrew (N=1) and cloud rats (N=3) Note that the porcupine is included elsewhere.**
Situation and rationale for proposed planning project		

Background: Threatened murids are often high elevation, forest dwelling, single-site endemics, with a few lowland forest species. Work is already underway at some locations hosting these species: there is active conservation work and enforcement in Mt. Isarog, where both a threatened endemic murid and a shrew are located. At Mt. Talinis, CCI, UP Silliman & UP Dilliman are doing annual biodiversity assessments for EDC (the energy corporation). There is a push to make a portion of Mt. Talinis a protected area and EDC is supportive of this. There is also rodent research underway on Dinagat. Murid species are given planning attention in the NAPERSEP2016 document, but not all of those that are currently assessed as globally threatened.

Cloud Rats are all high-elevation species, requiring good forest which is now fragmented. the Dinagat Cloud Rat is severely threatened by mining. On Panay Island, there have been very few observations of Cloud Rats (maybe 2 in 5 years). Captive programmes for these species have largely floundered. Some were sent to European zoos in the 1990s (e.g. the Zoological Society of London (ZSL)). The current status of these populations was not known to participants but they were of the Panay species. There are no known captive programmes for smaller murids or for the shrew.

Rationale for proposed grouping: Though threatened murids overlap little in distribution, they share similar situations and threat factors. Shrews are often logged when surveying other murids so it makes sense to group them for planning conservation action. Cloud Rats could usefully have their own plan as they are more seriously affected by some issues (such as trade and use) that rarely affect smaller murids.

Proposed planning scope and focus: A plan for smaller rodents and for the shrew could usefully address:

- Securing safe habitat: these species are not generally hunted and the forests in which they occur are not very disturbed but need ongoing protection from encroachment and disturbance by both people and associated species (invasive rodents can be a problem at some sites, viverrids are known to hunt them and cats and dogs could be a problem but this has not been looked at);
- Hunting & snaring: (*Bulimus gamay*) may be hunted in Camiguin but this is not known. *Bullimus bagobos* is hunted for protein in some local communities, and there are anecdotal accounts of indiscriminate snaring entrapping rodents;
- Mining affects Dinagat endemics, including the Gymnure.

For Cloud Rats, greater attention would be paid to trade and use, as they are caught in indiscriminate snares, are sometimes found in the pet trade and they are eaten.

	Recommended strategies and rationales	Potential leads, collaborators & stakeholders
1	Review NAPERSEP2016 to see if the murid section could be extended to include the additional species.	**DENR-BMB** & DENR regional offices. CCI, UP Silliman, UP Dilliman and UP Los Baños – (EDC? - check with Aloy Duya). For Palawan: PCSD, Larry Heaney and his Group, LGUs (to address specific threats in management plans). Concerned Protected Area Management Offices (for species endemic to their areas), IUCN SSC Small Mammal Specialist Group, Pol & Philip (to help with the shrew).
2	If it can, develop an action plan to fill any gaps in NAPERSEP2016 for small, threatened rodents and shrews, organised by family & habitat.	As above?
3	Develop an action plan for Cloud Rats.	PhilBio, Haribon, UP Baguio c/o Dr. Aries Reginaldo (for *Crateromys schadenbergii* and *Phloeomys pallidus*).
	Main challenges to achieving this	**Opportunities?**
	There is no conservation group devoted to small rodents in the Philippines.	- A grant has been awarded to an associate of Aloy Duya for rodent work on Dinagat - IUCN SSC Small Mammal Specialist Group is focused on this group (as well as other taxa)
	Next steps	Who could take them
	Review NAPERSEP2016 and scope a revision.	DENR-BMB
	DRAFT 5-10 year GOAL(S) for this group.	
	Rodent actions plans in place for all threatened murids, cloud rats and the shrew.	

PROPOSED MULTI-SPECIES PLANS – STRATEGY AND ACTION PLAN FOR PHILIPPINE WILD PIGS

7.	Group name/description	Philippine Wild Pigs (4 species in total - ***Sus cebifrons, Sus philippensis, Sus oliveri, Sus ahoenobarbus*. 1 of which is on the priority list – *Sus oliveri*)**
Situation and rationale for proposed planning project		

Background: The issues and solutions are similar for all species of wild pig in the Philippines. There was a previous action plan for them but this is out of date. The IUCN SSC Wild Pig Specialist Group could lead on the development of a new plan (its current focus is the Visayan Warty Pig). There is a recently completed DRA for all wild pig species in the Philippines (spear-headed by UPLB) focussing on the significant and present threat of African Swine Fever (ASF). Two populations have been infected to date, of which one has been wiped out. There are still areas where ASF is not yet reported (Negros, Mindoro & Palawan) and it is very important to keep these ASF free. ASF incidence overlaps with the habitat of *Sus philippensis* and no specific groups are working with this species at present. The DRA drew attention to the problem of parallel communication pathways involving DENR and BAI. The latter is responsible for ASF, the former for wild pigs. There are also issues with genetic contamination of wild pigs (Visayan & Philippine warty pigs). Hunting remains a major issue and post-DRA communications have been difficult to sustain, which needs attention. Gaps in knowledge are being worked on. Pig-human conflict would be an important component of any planning (including measures taken against crop-raiding, a major issue on Negros). In Mindanao, Christians buy pigs from Muslims. Hunting includes recreation (large animals, can be sold) and also farmers who are protecting crops (Pol – hunting study from 7 years ago).

Rationale for proposed grouping: Philippine wild pigs share several similar and significant conservation challenges, and all species require urgent attention to mitigate the threat of ASF.

Proposed planning scope and focus: development of a new Strategy and Action Plan for Wild Pigs of the Philippines could usefully encompass the following issues:

- ASF: integration of the outcomes of the recent DRA into broader conservation activities;
- Genetic "contamination" of wild pigs;
- Hunting and pig-human conflict;
- The spread of domestic pigs and the management of backyard farms.

For planning to be effective it will be necessary to include people who can speak on behalf of the local communities, including farmers.

	Recommended strategies and rationales	**Potential leads, collaborators & stakeholders**
1	A new Strategy and Action Plan for all Philippine Wild Pigs.	**IUCN SSC Wild Pig Specialist Group (who also spearheaded the DRA),** ASF-relevant partners (OIE, FAO), Talarak Foundation, Katala Foundation Inc., others orgs to be added. D'Arboville Foundation (includes representatives from Mangyan communities (Mindoro) and was included in the DRA stakeholder group); PENAGMANNAK INC. (Pederasyon sa Nagkahugpong mga Mag-uuma nga Nanalipud ug Nagpasig-uli sa Kinaiyhan Inc.) an organisation comprising 20 Peoples' Organisations of marginalised farmers that protect and rehabilitate the environment (Pol).
	Main challenges to achieving this	**Opportunities?**
	Bringing people together – this is a large and complex planning initiative.	2022 is the year of the Warty Pig for the German Zoo Association (zoos are long-term partners of wild pig work in the Philippines) The 2019 plan for five high-profile Visayas species, combining *in situ* & *ex situ* recommendations, can be a useful foundation document.
	Next steps	**Who could take them**

	Begin scoping and planning a stakeholder-inclusive planning process for Philippines' Wild Pigs.	IUCN SSC Wild Pig SG.
	DRAFT 5-10 year GOAL(S) for this group.	
	Start work after the May elections.	

PROPOSED MULTI-SPECIES PLANS – STRATEGY AND ACTION PLAN FOR FIVE PHILIPPINE BLEEDING HEARTS

8.	**Group name/description**	**Five Bleeding Hearts, *Gallicolumba spp*. - Luzon, Mindanao, Mindoro, Negros & Sulu. Two are on the workshop priority list (Mindanao Bleeding Heart, *G. crinigera,* (GROUP 3); and Sulu Bleeding Heart, *G. menagei,*(GROUP 1).**

Situation and rationale for proposed planning project

Background: Discussions are already underway to develop a single action plan for all five Bleeding Hearts. Of the five species included, the Luzon Bleeding Heart may be slightly more secure than the others. Neither the Mindoro nor the Sulu Bleeding Hearts have been seen for some time. These are lowland forest species that have lost much of their habitat. Though are not seen in international trade or prized in local markets, they are captured by indiscriminate netting and other methods. Habitat protection and restoration, poaching mitigation, effective *ex situ* management, reintroduction to suitable sites, and ongoing retention of genetic diversity, are some of the important conservation strategies for these species.

Ex situ populations of Luzon and Mindanao Bleeding Hearts are held locally and internationally, and the Negros Bleeding Heart is held in Negros and a small population in Singapore. There are currently no captive populations for Mindoro and Sulu Bleeding Hearts. It was noted that a possible taxonomic split between birds from Leyte and Samar may require separate holdings in captivity, and there may be other provenance/taxonomic issues to resolve within the *ex situ* populations.

The results of a project by PENAGMANNAK INC. and the Centre for Conservation Innovations Inc. (CCI) on Bleeding Hearts in High Conservation Value Areas (HCVAs) has proved valuable in looking at how to rehabilitate areas where species have been lost. For these species it has been shown that important microhabitat has been lost from places where the trees remain, such as the vegetation used by these birds to build nests. Identifying critical habitat features will be very important to this planning initiative, for use in habitat suitability mapping, and in increasing understanding of how to restore forests in ways that will make them suitable for these species.

The Negros Bleeding Heart already has a comprehensive action plan which can inform planning for the other species. This year, a reintroduction project will begin on Negros, and Haribon will be implementing a new project for Negros Bleeding Heart conservation in Aklan.

Rationale for proposed grouping: Though their ranges do not overlap, these five species share common challenges and are likely to benefit from similar conservation strategies.

Planning scope and focus: Five species of Bleeding-heart

- Habitat protection and restoration;
- Poaching mitigation;

• *Ex situ* management; • Reintroduction; • Gene diversity management.		
	Recommended strategies	**Potential leads, collaborators & stakeholders**
1	Develop an action plan for five Bleeding-hearts (noting the existing plan for Negros).	Talarak, CCI & PENAGMANNAK INC., Haribon (Negros BH), UPLB, Bristol & Toledo Zoos, Singapore Zoos, IUCN SSC Pigeon & Dove SG. Philicon (Panay).
	Main challenges to achieving this	**Opportunities?**
	None identified	Bristol & Toledo Zoos are sponsoring work on the Negros bleeding heart.
	Next steps	**Who could take them**
	Bleeding-heart Group to develop the plans	Talarak Foundation and the Bleeding-heart Group. Bleeding heart group will comprise of the Bleeding heart EAZA TAG's, IUCN Pigeon and Dove SG experts and local partners.
	DRAFT 5-10 year GOAL(S) for this group	
	Complete an action plan for 5 Bleeding-hearts and move to implementation.	

PROPOSED MULTI-SPECIES PLANS – STRATEGY AND ACTION PLAN FOR SPECIES THAT ARE GROUND-DWELLING AND HUNTED IN LOWLAND FOREST

9.	**Group name/description. Species that are ground-dwelling and hunted in lowland forest (Palawan), including Philippines Pangolin, Porcupine, Peacock Pheasant, Balabac Mouse Deer (GROUP 1) [plus additional species not prioritised for the workshop e.g. some less threatened carnivores].**
Situation and rationale for proposed planning project	
Background: Porcupine & peacock pheasant need plans and Balabac Mouse deer needs an updated to the existing plan. These are not so urgent but planning on the ground with local communities is more urgent. All species are hunting targets. Large areas are Ancestral Domains for which IPs need to develop management plans. Efforts to help them (there is not much information) – need to find means to institutionalise monitoring protection in local communities (hard because these are protected species that cannot be utilised except for eco-tourism). Major concerns are porcupine and peacock pheasant. Porcupine not on national list (**why? – could help elevate protection**). Limited international trade (Malaysia) for porcupines – under the radar.	

Rationale for proposed grouping: These species all need closed lowland forest in Palawan, they can be monitored with ground camera traps, and they are all hunted. In its very small range in Southern Palawan the Balabac Mousedeer, *Tragulus nigricans,* (covered by group 1), also fits in this group. **Proposed planning scope and focus**: To be determined		
	Recommended strategies and rationales	Potential leads, collaborators & stakeholders
1	Species-level plan covering porcupine and peacock pheasant (could include some other species).	**Katala & PCSD**, local communities, EAZA (porcupine), Toledo Zoo (Peacock pheasant), NCIP.
2	Local planning to cover on-ground issues.	
3	**Main challenges to achieving this**	**Opportunities?**
	Overlapping mandates in the areas & lack of motivation for monitoring among IPs – no obvious benefits.	Overlap opportunities with pangolin programme.
	Next steps	**Who could take them**
	Sit with NCIP, PCSD and work out a strategy for involving local communities.	Katala, PCSD
	DRAFT 5-10 year GOAL(S) for this group	
	To be determined.	

PROPOSED MULTI-SPECIES PLANS – STRATEGY AND ACTION PLAN FOR PHILIPPINE PIGEONS AND DOVES

10.	**Group name/description**	**Philippine Pigeons and Doves (including 5 species on the priority list for GROUP 3)**
Situation and rationale for proposed planning project		
Rationale for proposed grouping: Though there is variation across this group in terms of behaviour and ecology, local threats and conservation needs, there are enough similarities to consider a single planning initiative hosting multiple themes. There was too little time to discuss this in detail during the workshop. However, Matt Ward is a member of the relevant IUCN SSC Specialist Group and raise this for discussion in that forum to gauge interest. **Proposed planning scope and focus:** To be determined		
	Next steps	**Who could take them**

	Raise with the IUCN SSC Specialist Group for discussion in the first instance and report back.	Matt Ward (Talarak).
	DRAFT 5-10 year GOAL(S) for this group.	
	To be determined.	

PROPOSED MULTI-SPECIES PLANS – FOREST UNDERSTOREY BIRDS AND SONGBIRDS

11	**Group name/description: Forest Understorey Birds & Songbirds (Visayan Rhabdornis, Flycatchers, Thrushes, Celestial Monarch, Babblers): 1) In Palawan; 2) In other regions. Note: Isabela Oriole has an existing project.**

Situation and rationale for proposed planning project

Background: In many areas, much of the dipterocarp forest is lost and the canopy significantly opened. Understorey species preferring closed canopy are rarely seen now in surveys and are likely to have moved to higher elevations where there is less food, which will leading to population loss over time.

It possible to remedy this. Where specific food plants are protected (e.g. in the Twin Lakes Parks), some of these species are regularly seen (e.g. Flame Templed Babbler and Negros Striped Babbler were recorded in Mt Kanlaon (North Negros) Area in Murcia and in Twin Lakes Area (south Negros) (2009-2016 Energy Development Corp and UP Institute of Biology BCMP data). Protection in the Twin Lakes Parks is by farmers from the local community. Bird watchers come from everywhere to see these birds.

Understorey species such as flycatchers and babblers are often not taken care of in forest restoration projects. We need to ensure that forest restoration projects include typical understorey planting (P. Widmann).

Pilot sites for forest restoration in Negros are to be expanded out nationally and will be considering cryptic species. There are >50 partners in this all over Negros, including many IPs. The project is due to begin in March 2022. This project is incorporating many of the required understorey plants, which will be integrated following planting of pioneer species (Pol).

Palawan

In Palawan, recent typhoons have opened the canopy in places and known territories were not found afterwards. It is not known how long it will take for the canopy to close as such effects have not been seen in Palawan in the last 60-70 years. With the changing climate these effects can be more frequent and more severe and the forest is not necessarily adapted to this kind of impact (P. Widmann).

[Note there is one flycatcher & a babbler that fall within the Philippine Cockatoo sites but they are not suited to being captured under that umbrella because monitoring needs are different for these species].

It would be useful to highlight certain species within the bird photography and interest groups (Wild Bird Club Phil, Bird Photographers of the Philippines etc.) for citizen science data collection.

	Recommended strategies and rationales	**Potential leads, collaborators & stakeholders**

	Create a list of overlooked species & develop a synopsis of research & conservation efforts accessible on-line.	**BCSP** could lead this, possibly funded by the National Research Council of Philippines (Cynthia). IUCN SSC CPSG could send Red List data on the list of species developed, and unpublished PhD theses could be a good source also.
1	Assemble groups working on these species - map out where they are working, what they are doing, and identify gaps so that efforts/resources can be directed effectively.	**BCSP** could help with this (Cynthia). Haribon might be able to take a lead and the Philippines Red List Committee could also be involved. The Wild Bird Club of the Philippines could be approached (for education campaigns as well as tours) and UPLB for research proposals.
2	Highlight certain species within the bird photography and interest groups (Wild Bird Club of the Philippines, Wild Bird Photographers, Philippines, etc.) for citizen science data collection.	Talarak (Matt) and others (who?) to discuss with groups (including PhilBio, DENR, E-bird, Photographers -Desmond Allen, Rob Hutchinson).
	Next steps	**Who could take them**
	Create a list of overlooked species & develop a synopsis of research & conservation efforts accessible on-line.	**BCSP** (e.g. supported by National Research Council of Philippines) with help from CPSG and other agencies to send support materials (e.g. compiled A2P species records from IUCN Red List database and other sources).
	DRAFT 5-10 year GOAL(S) for this group	
	To be determined.	

PROPOSED MULTI-SPECIES PLANS – OWLS (POSSIBLY COMBINED WITH RAPTORS)

12.	**Group name/description: Owls (possibly combined with raptors)**
Situation and rationale for proposed planning project	
Background: Active conservation of owls may be hampered by, or at least not helped by, prevailing attitudes towards them. Some local communities have an aversion to them as embodiments of “tik-tiks” or Aswang – mythical creatures of Philippine folklore with negative associations. In the northern Philippines owls are associated with death – if seen entering a house they are shooed away. There is an indigenous practice in North Luzon, of setting up lamps during migration periods to trap birds – “ik-ik”. Owls are also documented to be captured this way though it is not known whether this has population-level effects. Awareness campaigns have been more successful for the larger owls (e.g. the eagle-owl is more popular than the smaller owls).	

Owls may compete with other species (e.g. parrots, hill mynahs) for nest holes, aggravated by the lack of nest cavities brought about by the destruction of old growth forest. Palawan Scops Owls have been found nesting in artificial nest boxes established for Philippine Cockatoos.

Given the extensive loss of habitat, a problem for owls is having the right nesting site as the young are vulnerable to cats etc. It is possible to put artificial nests in forests if nest sites are sturdy and well-protected during rains and against predators. *Otus nigrorum* will lay their eggs in the soft centre parts of destroyed palms (Pol). These inner, soft parts can be dug out and hung on canopies. Provision of suitable artificial nests can help propagation in captivity or in the wild.

Monitoring is a challenge because of the difficulty of surveying at night (though there are some bioaccoustic methods that can help with this – e.g. some bioaccoustic monitoring in Palawan through Huawei in connection with the university (Philip).

There is a Philippine Eagle-owl breeding program at Talarak but no associated *in situ* program. Talarak also has *ex situ* programs for two other, smaller, owls but again no current *in situ* component. The birds are used in school and other education programs.

Rationale for proposed grouping. Though there are differences among species, owls share several similar threats and conservation challenges that could benefit from a multi-species approach.

	Recommended strategies and rationales	**Potential leads, collaborators & stakeholders**
	Connect with additional owl experts to discuss this suggested planning project.	
	Connect with Raptor Watch to see whether there are opportunities to partner on monitoring.	
1	Connect to cavity nester projects (e.g. Sulu Hornbill).	Contact PhilBio & others.
	Main challenges to achieving this	**Opportunities?**
	There is no organisational champion for owls in the Philippines.	BCSP? Haribon?
	Next steps	**Who could take them**
	Discuss this with additional owl experts.	BCSP?

PROPOSED MULTI-SPECIES PLANS – KARST-DWELLING AMPHIBIANS

13.	**Group name/description. Limestone/Karst Dwelling Amphibians**
Situation and rationale for grouping	

Background: Most of the limestone/karst-dwelling frogs are *Platymantis* and not exactly cave-specialists (Arvin). Some of the species are poorly known and it is not clear (for example) whether they move into or out of the caves for breeding (Kier).

The major threat is habitat loss and degradation. Caves are mined for cement (though not all) and degradation of associated forest is a concern. Also, karst habitat is poorly-known/studied.

The major threat is habitat loss and degradation. Caves are mined for cement (though not all) and degradation of associated forest is a concern. Cave tourism is a major ecotourism activity and a source of revenue for LGUs (Arvin). Unassessed caves are sometimes opened to tourists without mgmt. plans, to increase LGU revenue (Kier).

There is legislation for the management of caves and associated resources (The Cave Act) which is highly relevant to this group and other species inhabiting or using the cave systems (Philip). All species inside the caves, including insects, are protected (Pol). However, for amphibians (and for other species such as bats), a buffer zone is needed with good vegetation, that extends from the mouth of the cave to and around the water bodies or other habitats where species feed or breed (Pol).

Rationale for groupings: amphibians are habitat specialists and as such it may be most useful to group them by micro-habitat and ecological requirements (Kier).

Cave/karst-dwelling amphibians could be grouped with other species that use the caves (including bats), with the plan focused on describing the additional measures needed to support the full life-cycles of all of those cave-dwelling species.

	Recommended areas of work.	**Potential leads, collaborators & stakeholders**
1	Expand the Cave Act to encompass the entire system (including karst).	DENR, LGUs, Caving Association groups, Universities.
2	Increase knowledge of poorly-known species that use the caves and karst habitat, to ensure their needs are understood. Increase knowledge of karst habitat and of the poorly-known species that use it (including the caves), to ensure their needs are understood. Increase knowledge of karst habitat and of the poorly-known species that use it (including the caves), and karst habitat to ensure their needs are understood.	
3	Formally assess and develop detailed management plans for karst habitat systems and include these within wider PA management plans.	
4	Explore the benefits of connecting to groups focused on karst-dwelling taxa (fishes, bats etc).	
	Main challenges to achieving this	**Opportunities?**
	Lack of funds and manpower and the limited understanding of, and importance ascribed to, the ecological importance and value of karst habitats (Kier).	There is a good standard cave assessment guideline that just needs to be implemented and replicated in other areas. The Cave Act is a great tool for protecting these species but really needs expansion (Arvin).

	Few conservation programs for cave-dwelling species and lack of knowledge of karst habitats which are poorly studied (Arvin).	Most of the karst habitats are already inside PAs; they just need to have formal assessments and detailed inclusion in the mgmt. plans (Arvin).
	Next steps	**Who could take them**
	Review the Cave Act.	DENR with stakeholders (subsequent note from Rizza that this review is already underway and revision will cover areas surrounding the caves).
	Develop management plans for all sensitive areas.	DENR with stakeholders
	Increase survey and research efforts.	Academic institutions, conservation organizations, NGOs. Some organizations work regionally so cannot identify them fully.
	Fortify efforts in community education and public awareness campaigns. The highest threat to the karst forest amphibians is habitat destruction with guano collection, some unexplained mining for treasures, vandalism, and uncontrolled tourism.	Academic institutions, conservation organizations, NGOs. Some organizations work regionally so cannot identify them fully.
	DRAFT 5-10 year GOAL(S) for this group	
	To be determined.	

PROPOSED MULTI-SPECIES PLANS – MID-MONTANE & LOWLAND FOREST DWELLING AMPHIBIANS

14.	**Group name/description: Mid-montane and lowland forest dwelling amphibians**
Situation and rationale for grouping	
Background: Loss and degradation of habitat are the main challenges. There is a need to establish Critical Habitat for some of these species. This is hard to do for frogs but frogs can benefit where areas are protected for larger species (e.g., the Philippines Eagle). Also, there are general challenges to establishing Critical Habitat (such as overlapping tenurial). Low awareness of endemic species can increase the difficulty of engaging stakeholders in conservation on the ground. Researchers can provide support though this can be limited by lack of expertise in identifying species and carrying out surveys (Kier).	

Another challenge in moving conservation forward for this group is that there are few organisations working in the Philippines who are focussed on amphibians. The group identified the following organisations/individuals who might be able to assist (Philip/Pol/Kier):

- PhilBio (Lisa Paguntalan) – has been developing species- specific conservation plans for some years;
- There is a project working on some captive breeding experiments for some of these frogs (Project Palaka c/o Norman Greenhawk);
- Dole Philippines, Inc.?
- Certified Rainforest Alliance (has an amphibian as its flagship – could be approached to support amphibian conservation?
- There is a group working on Guttman's stream frog (*Pulchrana guttmani*), a species lost for 27 years and just re-discovered - work is underway to plan interventions for species (the species is currently DD on the IUCN Global Red List and is not listed on the Philippines Red List).

Rationale for grouping: forest amphibians face several similar challenges that would benefit from being discussed and addressed together. Within a single planning initiative this group of species may benefit from being further broken up to focus on more specific micro-habitats within the forest (Kier).

	Recommended strategies and rationales	**Potential leads, collaborators & stakeholders**
1	Establishment of PAs, especially KBAs, in areas that are not yet protected; and establishment of Critical Habitats (Kier).	DENR, academic institutions, LGUs, tourism offices.
2	Awareness-raising for endemic species.	NGOs, local farmers; local ecotourism.
	Main challenges to achieving this	**Opportunities?**
	Less chance of establishing Critical Habitat frogs and possible resistance among locals using forest products (Kier).	Frogs can benefit from the protection of areas for bigger species like the Philippine Eagle, which required large areas of lowland and montane forests.
	Lack of expertise in identifying species and conducting surveys.	
	Difficulty of generating interest and support among LGUs for the less charismatic species – "story" must be framed for local interest (Kier, Arvin).	Some species and/or the areas they inhabit are unique and can attract interest and possibly support (e.g. Gigantes) (Kier, Arvin).
	Overlapping tenurial instruments need to be harmonised, to facilitate the declaration of Critical Habitat (Kier).	
	Next steps	**Who could take them**
	Revive Amphibian Specialist Group activity in the Philippines and assist DENR to develop an action plan for Philippines amphibian conservation.	Arvin (Philippines representative for the IUCN SSC Amphibian Specialist Group). Local herp NGOs can assist DENR in developing this (Rizza).

	Implement existing PA mgmt. plans and develop plans for the others that have none yet (ensuring adequate inclusion of amphibian needs).	National Parks Division of BMB should lead on this, with assistance from taxon specialists (Kier and Arvin to check this).
	Seek funding to develop a Philippine working group to develop these recommendations.	Philip Bowles.
	DRAFT 5-10 year GOAL(S) for this group	
	By 2030, at least 85% of recognized amphibian species in the Philippines are within protected areas	

POSSIBLE FUTURE PLANNING PROJECTS (CONTINGENT ON SURVEY RESULTS)

Kingfishers. Four species of kingfisher were included in the list of threatened terrestrial vertebrates not covered by a specific plan or programme of action. These were not thought to group well with other species because of their particular needs and they were considered to require their own plan. However, there was not enough time to discuss this group further and the right experts were not necessarily present.

Blue-backed Parrot. (*Tanygnathus everetti*). The Red List record states, "Conservation efforts, carried out by the local government, are ongoing on Panglima Sugala, Tawi Tawi (G. Jakosalem in litt . 2020)". The group confirmed that surveys are ongoing on Leyte & Samar. This species was flagged as potentially at risk from small population effects and may require supportive breeding (check with P. Widman). Talarak is interested in captive breeding and reintroduction of this species if needed. Surveys are the first step but planning will be a subsequent priority once there is more information, along with tracking down specimens held illegally. Note: this species should not be confused with the Sulawesi species.

15.	**Group name/description: Philippine Brown Deer.**
Situation and rationale for proposed planning project	
Background: Compared to the Visayan Spotted Deer, the Philippine Brown Deer has a larger range and more *ex situ* holding institutions but is less well-studied. Its status may be more precarious than currently assumed. The IUCN assessment requires an update. The Philippine Eagle Foundation could potentially be approached to help with field surveys (it supports a breeding population). The Visayan Spotted Deer already has a plan which could be used as a foundation for a Philippine Brown Deer plan as they are similar species with similar threats (i.e. hunted for food/sport). **Proposed planning scope and focus:** No planning was recommended for the present. Further surveys were recommended to clarify status and conservation needs, and to determine whether planning for this species should be a priority.	

	Recommended strategies and rationales	**Potential leads, collaborators & stakeholders**
1	Update knowledge of status and need for action.	Talarak, WV State Uni, Philippine Eagle Foundation, IUCN SSC Deer SG.
2	After that consider planning needs.	As above.

	Main challenges to achieving this	Opportunities?
	Lower priority species for organisations.	Cross-over opportunities where species are being looked at in the same location (e.g. pigs). J. C. Gonzalez is writing a chapter on Philippine Deer in the upcoming publication Deer of the World (update). If planning is required, Spotted Deer plan can be used as a foundation.
	Next steps	**Who could take them**
	Discuss survey project with potential partner organisations	Talarak Foundation.
	DRAFT 5-10 year GOAL(S) for this group	
	Need for planning and action assessed and appropriate action taken.	

APPENDIX I. WORKSHOP PROGRAMME

DAY 1 **[Jan 25th]**	**Activity**			**Format**
9.00 – 10.15am	• Technical check • Welcome • Introductions & TEAM PHOTO • Agenda & working agreement			Plenary session
10.15 – 10.30am	TEA BREAK			
10.30 – 12.30pm	Presentations: • Philippines NBSAP and relevance to species (DENR-BMB). • Assess-to-Plan aims and proposed outputs (IUCN SSC CPSG). • Results of A2P analyses (of all Philippines threatened terrestrial vertebrates) (IUCN SSC CPSG). • Rainforest Trust introduction (Rainforest Trust)			Plenary presentations
12.30 – 13.30pm	LUNCH			
13.30 – 16.00pm	**Sites WG:** Review potential candidate sites (i.e. areas hosting threatened species that are not protected elsewhere), discuss & agree prioritisation or order of discussion.	**Reptiles WG:** Review the conservation action (including research) recommendations for the recently assessed Threatened & DD reptile species. Refine if necessary.	**Other WG:** Review and update or refine, the review of conservation plans/programs in place, for threatened terrestrial vertebrates. Confirm any major gaps (e.g. species not currently covered by an	Breakout groups

			active plan or program). Group species for further discussion.	
16.15-17.00pm	Working groups present recommendations			Plenary
DAY 2 **(Jan 26th)**	Activity			Format
9.00 – 9.30	Technical check and DAY 1 re-cap			
9.30 – 11.30pm	**Sites WG:** Starting with prioritised sites, discuss and record details relevant to: • species needs and challenges at the site. • overall conservation impact and feasibility of protecting that site.	**Reptiles WG:** Complete work from the previous session. Identify next steps and who could lead or collaborate on the recommended action.	**Other WG: C**heck opportunities for support or efficiencies through existing or planned Philippines' initiatives and strategies.	Breakout groups
12.30-1.30pm	LUNCH			
1.30pm – 5.00pm	**Sites WG:** for candidate sites, discuss & record: • any current management actions and administrators for the site • additional conservation measures needed to protect species at the site; • contact details for prospective partners and agencies within the Philippines that could collaborate to secure the future of each site.	**Reptiles WG**: Identify any species requiring single species planning and any candidates for intensive care *in situ* or *ex situ.*	**Other WG**: Develop recommendations for remaining groups of species without current plans or programs, including next steps and who could lead or collaborate on implementation. Identify any species requiring single-species planning	Breakout groups

			and candidates for intensive care *in situ* or *ex situ*	
16.15-17.00pm	Working groups present recommendations			Plenary
DAY 3 **(Jan 27th)**	Activity.			Facilitator/ Presenter
9.00-9.30am	Technical check & DAY 2 recap.			Plenary session
9.30 – 10.30am	Working groups finalise their work.			Breakout groups
10.30am – 12.00pm	Final presentations from working groups.			Plenary Presentations
12.00-12.30pm	Next steps, discussion of report generation and wrap-up.			Plenary session
Closing	Closing remarks from DENR-BMB.			

APPENDIX II. LIST OF PARTICIPANTS

	Name	Affiliation	Email	Field of Research/Study
1	Dr. Rafe Brown	Kansas University	rafe@ku.edu	Herpetofauna
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10	Mr. Apolinario B. Carino	PENAGMANNAK	pol.carino@gmail.com	Bats
11	Dr. Juan Carlos T. Gonzalez	University of the Philippines-Los Baños	jtgonzalez@up.edu.ph	Birds
12	Ms. Lisa Marie J. Paguntalan	Philippine Biodiversity Conservation Foundation, Inc.	lisapaguntalan@philbio.org.ph	Birds
13	Ms. Indira Dayang Lacerna-Widmann	Katala Foundation, Inc.	idlacerna@yahoo.com	Birds
14	Ms. Cynthia Layusa-Oliveros	Biodiversity Conservation Society of the Philippines/ Isla Biodiversity Conservation, Inc. Isla	cynthia.layusa@gmail.com	Birds

15	Mr. Erickson Tabayag	University of the Philippines-Los Baños	ericksontabayag@gmail.com	Birds
16	Mr. Philip Godfrey C. Jakosalem	Philippine Biodiversity Conservation Foundation, Inc.	godo.jakosalem@philbio.org.ph	Birds and Bats
17	Dr. Lawrence Heaney	Field Museum of Natural History	lheaney@fieldmuseum.org	Mammals
18	Dr. Anna Pauline O. de Guia	University of the Philippines-Los Baños	aodeguia@up.edu.ph	Mammals
19	Dr. Philip A. Alviola	University of the Philippines-Los Baños	paalviola@up.edu.ph	Mammals
20	Dr. Mariano Roy M. Duya	University of the Philippines Diliman	mrduya@gmail.com	Mammals
21	Mr. Peter Widmann	Katala Foundation, Inc	widpeter@yahoo.com	Varied
22	Dr. Emilia A. Lastica-Ternura	University of the Philippines-Los Baños	ealastica@up.edu.ph	Varied
23	Ms. Marisol Pedregosa	Energy Development Corporation / Biodiversity Conservation Society of the Philippines	pedregosa.md@energy.com.ph	Varied
24	Mr. Cyrus Job P. dela Cruz	DENR Region 5	cyrusjob.delacruz@bicol-u.edu.ph	Varied
25	Ms. Kathy Lene S. Cielo	Mindoro Biodiversity Conservation Foundation Inc.	kathy_s_cielo@mbcfi.org.ph	Varied
26	Mr. James Lewis	Rainforest Trust	james.lewis@rainforesttrust.org	Varied
27	Mr. Josiah David G. Quimpo	Haribon Foundation, Inc.	iba@haribon.org.ph	Varied
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36	Mr. Christian Estacio Supsup	De La Salle University	christian.supsup@ku.edu	Varied
REPORT REVIEWERS				
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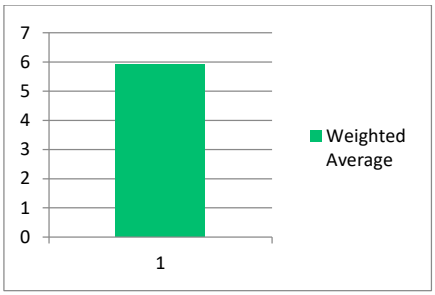
APPENDIX III. WORKSHOP EVALUATION

IUCN SSC CPSG Philippines Assess-to-Plan: Post-workshop Survey

RESPONSES TO Q1

Overall, how satisfied are you with the workshop?

1 (not satisfied)						7 (very satisfied)	Total	Weighted Average
1	2	3	4	5	6	7		
0	0	1	0	3	12	7	23	6.13



RESPONSES TO Q2

In your view, which stakeholders were not present at this workshop, who could have made a valuable contribution? (E.g. individuals, other government agencies, organisations, community groups). Please give details:

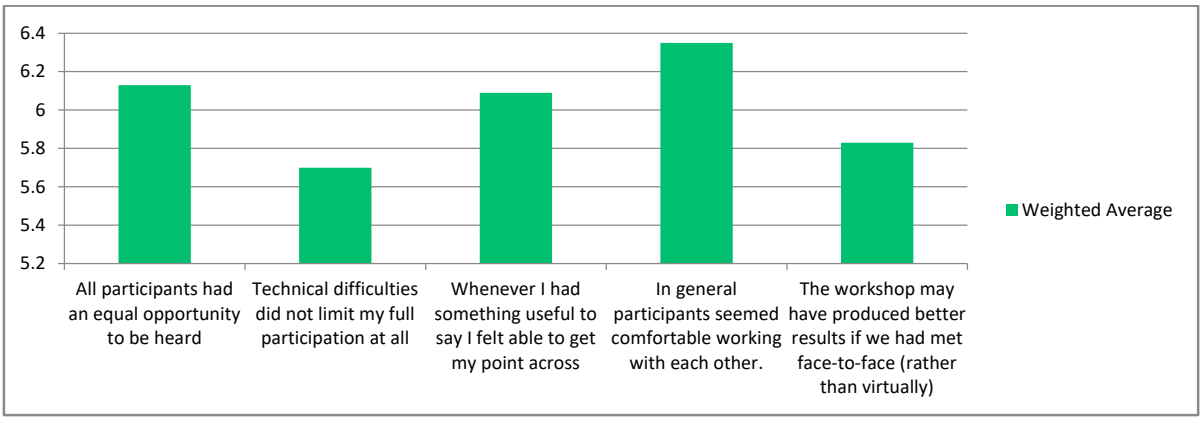
Responses
Centre for Conservation Innovations, PH; Wild Bird Club of Philippines, other Academes around the Philippines especially on Visayas and Mindanao Islands; Emerson Sy of PCTAR, Desmond Allen, Philippine National Museum of Natural History representatives.
I think it is well represented. But a regional workshop would gather more information. There are several data available but remain unpublished.
Other individuals and conservation institutions in some areas of the country.
Bureau of Animal Industry, IP representatives.
Academe.
Cave and Wetlands Division, my colleagues from Biodiversity Management Bureau (DENR-BMB).

None.
PhilBio, MBCFI.
Community groups.
Students (under- and graduate students) who are currently conducting research on threatened species.
I feel that representatives from the National Parks Division (NPD) should have been in that workshop since conservation planning entails looking at spatial data, particularly protected areas. The NPD also has information regarding the management plans of certain protected areas, which could have informed the discussions.
representatives of the local PENRO and CENRO Offices.
Philippine National Museum, academic institutions (MSU, Dr. Olga Nuñeza).
Indigenous peoples' representatives, as some areas and species were discussed where there is confusion as to the amount of use or impact had via indigenous groups and their legal/accepted harvesting.
LGUs.
Other POs like WWF and LAMAVE.
Indigenous Groups.
Local governments (might be a different venue though).
Community groups such as members of the Indigenous Communities who are likely the ones who may encountered species in areas which had not yet scientifically surveyed.

RESPONSES TO Q3

Please rate the following statements from your point of view. That is, "In my view, during the workshop……."

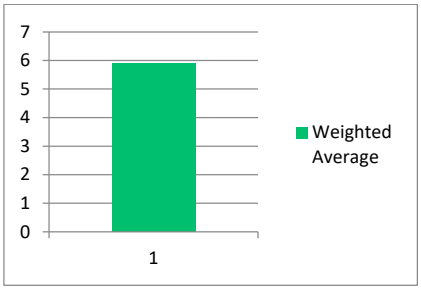
	1 (strongly disagree)						**7 (strongly agree)**	**Total**	**Weighted Average (%)**
	1	2	3	4	5	6	7		
All participants had an equal opportunity to be heard	0	1	0	0	3	9	10	23	6.13
Technical difficulties did not limit my full participation at all	0	0	3	0	4	10	6	23	5.7
Whenever I had something useful to say I felt able to get my point across	0	0	1	1	3	8	10	23	6.09
In general participants seemed comfortable working with each other.	1	0	0	0	1	7	14	23	6.35
The workshop may have produced better results if we had met face-to-face (rather than virtually)	1	0	0	4	2	5	11	23	5.83



RESPONSES TO Q4

In my view, the workshop was successful in identifying important work that needs to be done to support species not already covered by plans or programmes of action:

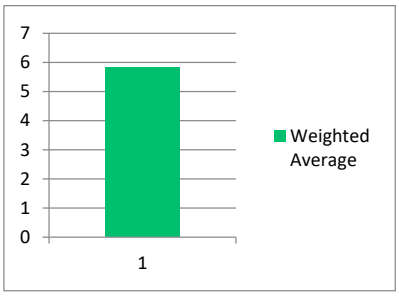
1 (strongly disagree)						7 (strongly agree)	Total	Weighted Average
1	2	3	4	5	6	7		
0	1	0	0	5	10	7	23	5.91



RESPONSES TO Q5

In my view, the workshop was successful in identifying important gaps in the knowledge we need to protect and/or manage threatened species:

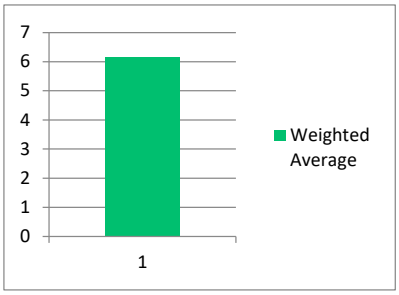
1 (strongly disagree)						**7 (strongly agree)**	**Total**	**Weighted Average**
1	2	3	4	5	6	7		
0	1	0	1	5	8	7	22	5.82



RESPONSES TO Q6

Describe your overall satisfaction with the way the discussions were designed, paced and supported (e.g. programme, presentations, visual aids and other materials):

1 (not satisfied)						7 (very satisfied)	Total	Weighted Average
1	2	3	4	5	6	7		
0	0	0	1	3	10	9	23	6.17



RESPONSES TO Q7

What would have improved your satisfaction with the way the discussions were designed and supported? (E.g. programme, visual aids and other materials). Please describe briefly:

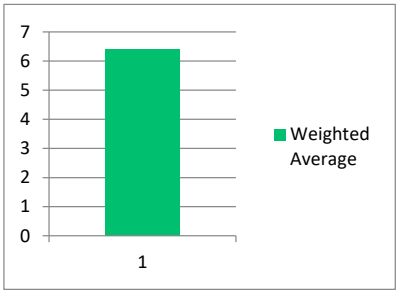
Responses
Time allotment and visual aids.
Overall I am satisfied with the workshop mechanics and visuals used. The attempt on the mapping was good. But it could have facilitated the discussion if distribution maps were already available prior to the workshop.
I am not sure; I was only invited on the 2nd half of the second day. The discussions I attended went well.
NA.
I think we need to identify the key players/stakeholders aside from the expert and engage them in the workshop for a more fruitful discussion. Participants are capacitated and involved from the previous workshops/trainings.
Perhaps more visuals.
Visual aids.

The organizers should have given us ample time prior to the workshop proper to study the materials given to us. We could have been more prepared with the information needed during the workshop.
The problem is on internet connection.
It would have been helpful to have more information in advance about which species would be considered. Also, the limitation to species listed as Threatened by IUCN caused many species to not be included. I would have preferred a stronger emphasis on identifying areas of endemism, rather than focusing solely on the IUCN lists.
would have been helpful, if one could have switched to other working groups easily for a while.
Inclusion of all presented matrices in the materials SENT AHEAD OF THE WORKSHOP.
A link to the maps with overlay of existing PAs and species distributions.
Images of the species and short biographies for better understanding of the existing knowledge and how to judge further actions.
Video contents of each species being discussed as it was discussed.
If we got the chance of witnessing the rest of the other group's discussions. Although their outputs were presented at the plenary but could have been better if we have some documentations from their discussions.
Visual aids - some details are not easy to read when viewed in the computer screen.
Resource materials.

RESPONSES TO Q8

Describe your overall satisfaction with your Working Group's outputs:

1 (not satisfied)						7 (very satisfied)	Total	Weighted Average
1	2	3	4	5	6	7		
0	0	0	1	0	11	11	23	6.39



RESPONSE TO Q9

What would have improved your satisfaction with your Working Group's outputs? (Please describe briefly):

Responses
attendance/presence of other stakeholders that could also contribute well and knowledgeable about our targeted outputs.
Face-to-face.

Reach out other experts or area based conservation groups and individuals for vetting.
Distribution of materials for activity (maliit po kasi minsan pagnaka sharescreen it depends on the device like mobile to laptop.
I think everyone should get involve and be heard, I don't know how to do it, perhaps a roll call may do :) Filipinos are generally shy.
Perhaps more people could have participated.
Face to face discussion.
We should have been given more time in fine-tuning/polishing our outputs. In addition, there were a lot of Filipino colleagues who are working on various taxa (including threatened species) who were not present or invited during the workshop.
The problem is on internet connection.
As above.
more participants from the different regions.
Better internet in my office!
I was very satisfied but I think it could have been better if more people were able to attend. We just found ourselves unsure and not able to make decisions ourselves. And a f2f meeting will definitely be more engaging and productive.
The kingfishers were not discussed in detail due to time constraints, but it was mostly due to lack of expertise.
We just need ample time to discuss within our group more possible inputs. We have very tight or limited time discussing all the species or groups.
More minds. It's quite limited (participants).

RESPONSES TO Q10

Has your participation in the workshop improved your understanding of the Assess-to-Plan exercise/activity? (Please describe briefly):

Responses
yes, for systematic planning of several taxa and the applicability of plans.
Yes, it has made me realize on stuff and information necessary to have in order to achieve the objectives of the A2P.
A lot has been already done in the past but lack coordinated efforts to centralize the actions and efforts.
Yes, for species and Site conservation action plans.
Yes, I'm not expert. This gave me an opportunity to learn from the experts during the discussion. (Di po makaparticipate sa discussion dahil konti palang po nalalaman ko).
Honestly, I didn't get to participate well aside from I have an equally important meetings to attend during the workshop. But also, due to limited knowledge on reptiles. I only know their importance aside from their role (maintaining balance) in food web as predators and prey, that's why we need to protect them. But as to know the plan how to protect them I need more information about these animals e.g. habitats, characteristics which I learned during the discussion.
Yes, definitely.
Yes.

Yes, it did. The workshop became an opportunity for me to look into the various conservation management actions that can be done on threatened species. This is very beneficial for me as my work on threatened species is mainly on basic research (e.g. biology/ecology) and very few on actual conservation-related activities. Hopefully there will be a follow-up workshop on the status of the working group outputs.
Yes, although I would need more time for reading to have a much better understanding of the concept.
Yes, I reached a better inside understanding.
Yes, since it was the first time to participate in such exercise for entire threatened species assemblage.
Yes, I did have a lot of questions about the prioritization process though.
A little, although I have been involved in others.
Yes. This workshop aims to further identify the species that do not have an existing plan to their conservation and this workshop is a way to address most of this species.
So far yes. However, some previous discussions/workshops on specific species where I've participated but with this exercise, I got the chance of learning and sharing my thoughts.
Yes.

RESPONSES TO Q11

If you have other comments, suggestions or insights, please share them here:

Responses
The legal protection of five PAs in Palawan must be pursued by DENR as a priority. Its inclusion as initial components of the ENIPAS is not sufficient considering the current threats and political instability. With the ENIPAS, 3 years has almost lapsed and the actions are not as fast as it should be.
If we had already identify like for example sites with presence of threatened species and needed protection but currently falling out of any PA or protective legal instrument, are government agencies/organizations allowed to seek funding with IUCN/Rainforest Trust to do further assessment/studies for the establishment of these areas into critical habitat or PA?
A F2F workshop in the future would help define more the needs and identify critical actions such as prioritization. It would also be worthwhile to look at the boundaries of existing PAs and expanding them as a priority action too. Assessment of effectivity and contribution of existing PAs to species conservation is also a big gap.
I think we need to involve the community and educate them through information dissemination campaign (IEC) and capture people's interest specially on reptiles, like their importance aside from delicacies, pets, predators etc. And also, we need to have capacity building or train more people on the conservation and protection of these species, from getting data to drafting a plan. **For the facilitators and host- thank you very much for your diligence and your patience and your time. Stay healthy and stay safe!**
Over-all, I am quite satisfied in the delivery and execution. Juts wished more people could have been less shy n sharing their views. Maybe it's a cultural thing, just maybe.
None.
None, but hopefully, future workshops could be done face-to-face. The time for discussions and workshop proper could be maximized even when days are limited.
As above.
Still hoping, the next workshop can be dual: personal participants if they have the possibility, and online for people not having this chance.

Thank you for inviting me and I am hoping for the success of your future endeavours. I am glad to have the opportunity to share ideas and experiences with fellow wildlife biologists.
The King Cobra should have been discussed more thoroughly.
This workshop should have tackled as well the rediscovered species, as well as cryptic species that are recorded in text but haven't been seen in a long time.
Participation of indigenous peoples may bring in more local knowledge on the species assessed and any possible implications to their knowledge and practices may also help in the assessment proceedings.
I wish I was able to participate throughout the 3-day workshop. However, I had prior engagements during the 2nd and 3rd day. Hopefully, I can attend the whole workshop next time.

APPENDIX IV: ALL SPECIES WITH RECOMMENDED NEXT STEPS

Class	Scientific Name	Common Name	DENR Cat.	Red List Cat.	A2P Recommendations	Working Group
AMP	*Pelophryne albotaeniata*	White-striped Flathead Toad	Not Included	VU	Proposed Multi-species Action Plan – Mid-Montane & Lowland Forest Dwelling Amphibians.	3
AMP	*Platymantis subterrestris*	Mt. Data Cloud Frog	VU	EN	Proposed Multi-species Action Plan – Mid-Montane & Lowland Forest Dwelling Amphibians. (Also included in NAPERSEP2016).	3
AMP	*Platymantis montanus*	Mountain Forest Frog	VU	VU	Proposed Multi-species Action Plan – Mid-Montane & Lowland Forest Dwelling Amphibians.	3
AMP	*Platymantis sierramadrensis*	Platymantis sierramadrensis	Not Included	VU	Proposed Multi-species Action Plan – Mid-Montane & Lowland Forest Dwelling Amphibians.	3
AMP	*Platymantis taylori*	Platymantis taylori	Not Included	VU	Proposed Multi-species Action Plan – Mid-Montane & Lowland Forest Dwelling Amphibians.	3
AMP	*Platymantis diesmosi*	Mt. Malinao Forest Frog	Not Included	EN	Critical sites proposed for protection. Proposed Multi-species Action Plan – Mid-Montane & Lowland Forest Dwelling Amphibians.	1,3
AMP	*Platymantis lawtoni*	Lawton's Wrinkled Ground Frog	VU	EN	Proposed Multi-species Action Plan – Mid-Montane & Lowland Forest Dwelling Amphibians.	3
AMP	*Platymantis levigatus*	Tablas Wrinkled Ground Frog	VU	EN	Proposed Multi-species Action Plan – Mid-Montane & Lowland Forest Dwelling Amphibians.	3
AMP	*Platymantis panayensis*	Panay Forest Frog	VU	EN	Proposed Multi-species Action Plan – Mid-Montane & Lowland Forest Dwelling Amphibians.	3
AMP	*Platymantis paengi*	Panay Limestone Frog	Not Included	EN	Proposed multi-species Action Plan for Karst-Dwelling Amphibians.	3
AMP	*Platymantis hazelae*	Hazel's Wrinkled Ground Frog	Not Included	VU	Proposed Multi-species Action Plan – Mid-Montane & Lowland Forest Dwelling Amphibians.	3

AMP	*Platymantis spelaeus*	Cave Wrinkled Ground Frog	EN	EN	Proposed multi-species Action Plan for Karst-Dwelling Amphibians (Also, existing Dedicated Plan - Tiyabanan Banio Conservation Programme + in NAPERSEP2016).	3
AMP	*Platymantis insulatus*	Gigante Wrinkled Ground Frog	CR	CR	Critical sites proposed for protection. Proposed multi-species Action Plan for Karst-Dwelling Amphibians.	1,3
AMP	*Alcalus mariae*	Palawan Eastern Frog	Not Included	EN	Critical sites proposed for protection. Proposed multi-species Action Plan for Karst-Dwelling Amphibians.	1,3
AMP	*Limnonectes diuatus*	White-spined fanged frog	VU	VU	Proposed Multi-species Action Plan – Mid-Montane & Lowland Forest Dwelling Amphibians.	3
AMP	*Ichthyophis weberi*	Malatgan River Caecilian	OTS	EN	Proposed Multi-species Action Plan – Mid-Montane & Lowland Forest Dwelling Amphibians.	3
AMP	*Leptobrachium tagbanorum*	Palawan Litter Frog	Not Included	VU	Proposed Multi-species Action Plan – Mid-Montane & Lowland Forest Dwelling Amphibians.	3
AMP	*Leptobrachium mangyanorum*	Mindoro Litter Frog	OTS	VU	Proposed Multi-species Action Plan – Mid-Montane & Lowland Forest Dwelling Amphibians.	3
AMP	*Kaloula walteri*	Kaloula Walteri	Not Included	VU	Proposed Multi-species Action Plan – Mid-Montane & Lowland Forest Dwelling Amphibians.	3
AMP	*Sanguirana igorota*	Sanguirana igorota	Not Included	VU	Proposed Multi-species Action Plan – Mid-Montane & Lowland Forest Dwelling Amphibians.	3
AMP	*Sanguirana aurantipunctata*	Sanguirana aurantipunctata	Not Included	VU	Critical sites proposed for protection. Proposed Multi-species Action Plan – Mid-Montane & Lowland Forest Dwelling Amphibians.	1,3
AMP	*Sanguirana tipanan*	Alcala's Sierra Madre Frog	Not Included	VU	Proposed Multi-species Action Plan – Mid-Montane & Lowland Forest Dwelling Amphibians.	3
AMP	*Pulchrana mangyanum*	Pulchrana Mangyanum	Not Included	VU	Proposed Multi-species Action Plan – Mid-Montane & Lowland Forest Dwelling Amphibians.	3
AMP	*Philautus everetti*	Everett's Flying Frog	Not Included	EN	Proposed Multi-species Action Plan – Mid-Montane & Lowland Forest Dwelling Amphibians.	3

AMP	*Philautus longicrus*	Palawan Bubble-nest Frog	Not Included	VU	Proposed Multi-species Action Plan – Mid-Montane & Lowland Forest Dwelling Amphibians.	3
AMP	*Philautus schmackeri*	Schmacker's Tree Frog	VU	EN	Critical sites proposed for protection. Proposed Multi-species Action Plan – Mid-Montane & Lowland Forest Dwelling Amphibians.	1,3
AVES	*Nisaetus pinskeri*	South Philippine Hawk-eagle	EN	EN	Proposed multi-species action Plan for Owls (possibly combined with raptors).	3
AVES	*Pithecophaga jefferyi*	Philippine Eagle	CR	CR	Existing dedicated plan + NAPERSEP2016.	3
AVES	*Nisaetus philippensis*	North Philippine Hawk-eagle	VU	EN	Proposed multi-species action Plan for Owls (possibly combined with raptors).	3
AVES	*Actenoides hombroni*	Blue-capped Kingfisher	VU	VU	Proposed Kingfisher Action Plan.	3
AVES	*Ceyx mindanensis*	South Philippine Dwarf-Kingfisher	Not Included	VU	Proposed Kingfisher Action Plan.	3
AVES	*Ceyx melanurus*	North Philippine Dwarf-kingfisher	VU	VU	Proposed Kingfisher Action Plan.	3
AVES	*Todiramphus winchelli*	Rufous-lored Kingfisher	VU	VU	Proposed Kingfisher Action Plan.	3
AVES	*Anas luzonica*	Philippine Duck	VU	VU	No action recommended at A2P.	3
AVES	*Buceros hydrocorax*	Northern Rufous Hornbill	EN	VU	Included in NAPERSEP2016.	NC
AVES	*Rhabdotorrhinus (Aceros) waldeni*	Rufous-headed (Walden's) Hornbill	CR	CR	Included in NAPERSEP2016 and in West Visayas Big Five Action Plan.	NC
AVES	*Penelopides panini*	Visayan Hornbill	CR	EN	Included in NAPERSEP2016. Included in West Visayas Big Five Action Plan.	NC

AVES	*Buceros mindanensis*	Southern Rufous Hornbill	Not Included	VU	Critical sites proposed for protection.	1
AVES	*Anthracoceros marchei*	Palawan Hornbill	VU	VU	Proposed Philippine Cockatoo Species Action Plan as umbrella for cavity nesters.	3
AVES	*Penelopides mindorensis*	Mindoro Tarictic Hornbill	EN	EN	Included in NAPERSEP2016.	NC
AVES	*Anthracoceros montani*	Sulu Hornbill	CR	CR	Existing dedicated plan + in NAPERSEP2016).	NC
AVES	*Cacatua haematuropygia*	Philippine Cockatoo	CR	CR	Has existing dedicated programme + in NAPERSEP2016. Proposed as umbrella species for cavity nesters: recommend Species Action Plan for Philippine Cockatoo (has existing dedicated programme + in NAPERSEP2016).	3
AVES	*Edolisoma ostentum*	White-winged Cicadabird	VU	VU	Include within West Visayas Big Five Action Plan.	3
AVES	*Edolisoma mindanense*	Black-bibbed Cicadabird	VU	VU	BCSP to discuss further.	3
AVES	*Chloropsis flavipennis*	Philippine Leafbird	CR	VU	BCSP to discuss further	3
AVES	*Ramphiculus marchei*	Flame-breasted Fruit-dove	EN	VU	Proposed multi-species Action Plan for Philippines Pigeons and Doves	3
AVES	*Gallicolomba keayi*	Negros Bleeding-heart	CR	CR	Included in NAPERSEP2016 and in West Visayas Big Five Action Plan.Proposed multi-species Action Plan for five Philippine Bleeding Hearts.	3
AVES	*Ptilinopus arcanus*	Negros Fruit-dove	CR	CR	Included in NAPERSEP2016. Proposed multi-species Action Plan for Philippines Pigeons and Doves.	3
AVES	*Phapitreron frontalis*	Cebu Brown-dove	Not Included	CR	Critical sites proposed for protection. Proposed multi-species Action Plan for Philippine Pigeons and Doves	1,3
AVES	*Phapitreron brunneiceps*	Dark-eared Brown-dove	VU	VU	Proposed multi-species Action Plan for Philippine Pigeons and Doves	3

AVES	*Gallicolumba crinigera*	Mindanao Bleeding Heart	VU	VU	Proposed multi-species Action Plan for five Philippine Bleeding Hearts	3
AVES	*Ducula mindorensis*	Mindoro Imperial-pigeon	EN	EN	Included in NAPERSEP2016. Proposed multi-species Action Plan for Philippine Pigeons and Doves.	3
AVES	*Gallicolumba platenae*	Mindoro Bleeding Heart	CR	CR	Proposed multi-species Action Plan for five Philippine Bleeding Hearts. (Also included in NAPERSEP2016).	
AVES	*Gallicolumba menagei*	Sulu Bleeding-heart	CR	CR	Critical sites proposed for protection. Included in NAPERSEP2016. Proposed multi-species Action Plan for Philippine Pigeons and Doves.	1,3
AVES	*Phapitreron cinereiceps*	Tawitawi Brown-dove	VU	EN	Critical sites proposed for protection. Proposed multi-species Action Plan for Philippine Pigeons and Doves. (Also included in NAPERSEP2016).	1,3
AVES	*Ducula carola*	Spotted Imperial Pigeon	EN	VU	Proposed multi-species Action Plan for Philippines Pigeons and Doves	3
AVES	*Streptopelia dusumieri*	Philippine Collared-dove	EN (*Streptopelia bitorquata)*	VU	Proposed multi-species Action Plan for Philippines Pigeons and Doves	3
AVES	*Ducula pickeringii*	Grey Imperial Pigeon	?	VU	Proposed multi-species Action Plan for Philippines Pigeons and Doves	3
AVES	*Centropus steerii*	Black-headed Coucal	CR	CR	Included in NAPERSEP2016.	NC
AVES	*Dicaeum haematostictum*	Black-belted Flowerpecker	VU	VU	House under West Visayas Big Five Action Plan.	3
AVES	*Dicaeum quadricolor*	Cebu Flowerpecker	CR	CR	Existing dedicated project + in NAPERSEP2016.	NC
AVES	*Dicaeum retrocinctum*	Scarlet-collared Flowerpecker	VU	VU	BCSP to discuss further	3
AVES	*Dicrurus menagei*	Tablas Drongo	CR	EN	Critical sites proposed for protection (also included in NAPERSEP2016).	1

AVES	*Erythrura viridifacies*	Green-faced Parrotfinch	VU	VU	BCSP to discuss further	3
AVES	*Sarcophanops samarensis*	Visayan Wattled Broadbill	VU	VU	BCSP to discuss further	3
AVES	*Sarcophanops steerii*	Mindanao Wattled Broadbill	VU	VU	BCSP to discuss further	3
AVES	*Robsonius rabori*	Cordillera Ground-warbler	VU	VU	Critical sites proposed for protection	1
AVES	*Hypothymis coelestis*	Celestial Monarch	CR	VU	Proposed multi-species Action Plan for forest understorey birds and songbirds	3
AVES	*Vauriella insignis*	White-browed Jungle-flycatcher	VU	VU	Proposed multi-species Action Plan for forest understorey birds and songbirds	3
AVES	*Cyornis camarinensis*	Rufous-breasted Blue-flycatcher	Not Included	VU	Proposed multi-species Action Plan for forest understorey birds and songbirds	3
AVES	*Vauriella albigularis*	White-throated Jungle-flycatcher	EN	EN	Proposed multi-species Action Plan for forest understorey birds and songbirds (also Included in NAPERSEP2016).	3
AVES	*Kittacincla cebuensis*	Black Shama	EN	EN	Proposed multi-species Action Plan for forest understorey birds and songbirds (also Included in NAPERSEP2016).	3
AVES	*Ficedula basilanica*	Little Slaty Flycatcher	VU	VU	Proposed multi-species Action Plan for forest understorey birds and songbirds	3
AVES	*Ficedula platenae*	Palawan Flycatcher	VU	VU	Proposed multi-species Action Plan for forest understorey birds and songbirds	3
AVES	*Muscicapa randi*	Ashy-breasted Flycatcher	EN	VU	Proposed multi-species Action Plan for forest understorey birds and songbirds	3
AVES	*Oriolus isabellae*	Isabela Oriole	CR	CR	Proposed multi-species Action Plan for forest understorey birds and songbirds (also included in NAPERSEP2016 and has an existing project)	3
AVES	*Ptilocichla falcata*	Falcated Wren-babbler	VU	VU	Proposed multi-species Action Plan for forest understorey birds and songbirds (also Included in NAPERSEP2016).	3

AVES	*Polyplectron napoleonis*	Palawan Peacock-pheasant	EN	VU	Proposed multi-species action plan for species that are ground-dwelling and hunted in lowland forest	3
AVES	*Chrysocolaptes xanthocephalus*	Yellow-faced Flameback	EN	EN	Include within West Visayas Big Five Action Plan	3
AVES	*Mulleripicus fuliginosus*	Southern Sooty Woodpecker	Not Included	VU	BCSP to discuss further	3
AVES	*Chrysocolaptes erythrocephalus*	Red-headed Flameback	EN	EN	Critical sites proposed for protection. Proposed Philippine Cockatoo Species Action Plan as umbrella for other cavity nesters.	1.3
AVES	*Picoides ramsayi*	Sulu Pygmy Woodpecker	VU	VU	BCSP to discuss further	3
AVES	*Pitta steerii*	Azure-breasted Pitta	VU	VU	BCSP to discuss further	3
AVES	*Prioniturus luconensis*	Green Racquet-tail	CR	EN	BCSP to discuss further	3
AVES	*Prioniturus platenae*	Blue-headed Racquet-tail	VU	VU	Proposed Philippine Cockatoo Species Action Plan as umbrella for other cavity nesters.	3
AVES	*Prioniturus mindorensis*	Mindoro Racquet-tail	EN	VU	BCSP to discuss further	3
AVES	*Prioniturus verticalis*	Blue-winged (Sulu) Racket-tail	CR	CR	Critical sites proposed for protection.	1
AVES	*Tanygnathus everetti*	Blue-backed Parrot	CR (*T. sumatranus*)	EN	Possible future planning project (contingent on results of surveys)	3
AVES	*Hypsipetes (Ixos) siquijorensis*	Streak Breasted Bulbul	CR	EN	Included in NAPERSEP2016.	3
AVES	*Gallirallus calayanensis*	Calayan Rail	EN	VU	Critical sites proposed for protection. (Also, has an existing dedicated Plan + is in NAPERSEP2016).	1,3
AVES	*Rhipidura sauli*	Tablas Fantail	EN	VU	Critical sites proposed for protection.	1
AVES	*Ninox leventisi*	Camiguin Boobook	EN	EN	Proposed multi-species action Plan for Owls (possibly combined with raptors)	3

AVES	*Ninox spilonotus*	Romblon Boobook	EN	EN	Proposed multi-species action Plan for Owls (possibly combined with raptors)	3
AVES	*Otus nigrorum*	Visayan Scops Owl	VU	VU	Proposed multi-species action Plan for Owls (possibly combined with raptors)	3
AVES	*Ninox rumseyi*	Cebu Boobook	EN	EN	Proposed multi-species action Plan for Owls (possibly combined with raptors)	3
AVES	*Otus gurneyi*	Giant Scops Owl	EN	VU	Proposed multi-species action Plan for Owls (possibly combined with raptors)	3
AVES	*Ninox mindorensis*	Mindoro Boobook	VU	VU	Proposed multi-species action Plan for Owls (possibly combined with raptors)	3
AVES	*Ninox reyi*	Sulu Boobook	VU	VU	Critical sites proposed for protection. Proposed multi-species action Plan for Owls (possibly combined with raptors)	1,3
AVES	*Bubo philippensis*	Philippine Eagle-owl	EN	VU	Proposed multi-species action Plan for Owls (possibly combined with raptors)	3
AVES	*Rhabdornis rabori*	Visayan Rhabdornis	Not Included	VU	Proposed multi-species Action Plan for forest understorey birds and songbirds	3
AVES	*Geokichla cinerea*	Ashy Thrush	VU	VU	Proposed multi-species Action Plan for forest understorey birds and songbirds	3
AVES	*Geokichla interpres*	Chestnut-capped Thrush	Not Included	EN	Critical sites proposed for protection. Proposed multi-species Action Plan for forest understorey birds and songbirds	1,3
AVES	*Dasycrotapha speciosa*	Flame-templed Babbler	EN	EN	Proposed multi-species Action Plan for forest understorey birds and songbirds (also included in NAPERSEP2016).	3
AVES	*Zosterornis nigrorum*	Negros Striped Babbler	EN	EN	Proposed multi-species Action Plan for forest understorey birds and songbirds (also included in NAPERSEP2016).	3
MAM	*Bubalus mindorensis*	Tamaraw	CR	CR	Included in NAPERSEP2016	3
MAM	*Rusa marianna*	Philippine Deer	EN	VU	Possible future planning project (contingent on survey results)	3

MAM	*Rusa alfredi*	(Philippine) Visayan Spotted Deer	CR	EN	Existing Philippines Spotted Deer Conservation Programme and in NAPERSEP2016. Also, included in West Visayas Big Five Action Plan	3
MAM	*Axis (Cervus) calamianensis*	Calamian Deer	EN	EN	Proposed single-species Action Plan for Calamian Deer	3
MAM	*Podogymnura aureospinula*	Dinagat Gymnure	VU	EN	Critical sites proposed for protection.	1
MAM	*Hystrix pumila*	Philippine Porcupine	Not Included	VU	Proposed multi-species action plan for species that are ground-dwelling and hunted in lowland forest.	3
MAM	*Nycticebus menagensis*	Philippine Slow Loris	Not Included	VU	Proposed Action Plan for Slow Loris	3
MAM	*Manis culionensis*	Philippine Pangolin	EN	CR	Dedicated Plan in place. Proposed inclusion in multi-species action plan for species that are ground-dwelling and hunted in lowland forest.	3
MAM	*Bullimus gamay*	Camiguin Bullimus	Not Included	VU	Proposed multi-species Action Plan for endemic rodents and shrews.	3
MAM	*Apomys camiguinensis*	Camiguin Forest Mouse	Not Included	VU	Proposed multi-species Action Plan for endemic rodents and shrews.	3
MAM	*Archboldomys luzonensis*	Isarog Shrew Mouse	OTS	VU	Proposed multi-species Action Plan for endemic rodents and shrews.	3
MAM	*Rhynchomys isarogensis*	Isarog Rhynchomys	Not Included	VU	Proposed multi-species Action Plan for endemic rodents and shrews.	3
MAM	*Crateromys schadenbergi*	Luzon Crateromys	VU	EN	Critical sites proposed for protection. Proposed multi-species Action Plan for endemic rodents and shrews.	1,3
MAM	*Crateromys heaneyi*	Panay Bushy-tailed Cloud Rat	EN	EN	Critical sites proposed for protection - follow up. Proposed multi-species Action Plan for endemic rodents and shrews.	1,3
MAM	*Tarsomys echinatus*	Spiny tarsomys	Not Included	VU	Proposed multi-species Action Plan for endemic rodents and shrews.	3

MAM	*Batomys russatus*	Russet Batomys	VU	EN	Critical sites proposed for protection. Proposed multi-species Action Plan for endemic rodents and shrews.	1,3
MAM	*Pteropus dasymallus*	Ryukyu Flying Fox	VU	VU	Proposed multi-species Action Plan for Philippines Bats	3
MAM	*Acerodon jubatus*	Golden-crowned Flying Fox	CR	EN	Proposed multi-species Action Plan for Philippines Bats (also included in NAPERSEP2016).	3
MAM	*Dobsonia chapmani*	Philippine Bare-backed Fruit Bat	CR	CR	Proposed multi-species Action Plan for Philippines Bats (also included in NAPERSEP2016).	3
MAM	*Acerodon leucotis*	Palawan Fruit Bat	EN	VU	Proposed multi-species Action Plan for Philippines Bats	3
MAM	*Desmalopex microleucopterus*	Mindoro Mottle-winged Flying Fox	VU	EN	Proposed multi-species Action Plan for Philippines Bats	3
MAM	*Styloctenium mindorensis*	Mindoro Stripe-faced Fruit Bat	VU	EN	Proposed multi-species Action Plan for Philippines Bats	3
MAM	*Nyctimene rabori*	Philippine tube-nosed Fruit Bat	EN	EN	Proposed multi-species Action Plan for Philippines Bats	3
MAM	*Desmalopex leucopterus*	White-winged Flying Fox	Not Included	VU	Proposed multi-species Action Plan for Philippines Bats	3
MAM	*Dyacopterus rickarti*	Rickart's Dyak Fruit Bat	Not Included	EN	Proposed multi-species Action Plan for Philippines Bats	3
MAM	*Eonycteris robusta*	Philippine Dawn Bat	VU	VU	Proposed multi-species Action Plan for Philippines Bats	3
MAM	*Crocidura negrina*	Negros Shrew	Not Included	EN	Proposed multi-species Action Plan for endemic rodents and shrews	3
MAM	*Sus cebifrons*	Visayan Warty Pig	CR	CR	Proposed inclusion in multi-species action plan for Philippines Wild Pigs. Existing Visayan Warty Pig Conservation Programme + in NAPERSEP2016. Also included in West Visayas Big Five Action Plan.	3

MAM	*Sus oliveri*	Oliver's Warty Pig	EN	VU	Proposed multi-species Action Plan for Philippines Wild Pigs.	3
MAM	*Sus philippensis*	Philippine Warty Pig	VU	VU	Proposed multi-species Action Plan for Philippines Wild Pigs.	3
MAM	*Tragulus nigricans*	Balabac Mouse Deer	VU	EN	Critical sites proposed for protection. Proposed multi-species Action Plan for species that are ground-dwelling and hunted in lowland forest	1,3
REP	*Pseudorabdion talonuran*	Panay Island Reed Snake	Not Included	VU	No specific next steps proposed for VU Reptiles due to time constraints.	2
REP	*Lycodon chrysoprateros*	Ross' Wolf Snake	Not Included	EN	Urgent research into the taxonomic status to verify that this is a distinct species. The species is not known to be covered by a plan. Need to follow up on the status and use of the island and learn about the landowner's interests. A management plan could be developed within a 5-10 year timeframe. Landowners can be encouraged to declare Critical Habitat as part of a management plan. Raise awareness of the presence of an endemic snake on this island	2
REP	*Lycodon ferroni*	Samar Wolf Snake	Not Included	VU	No specific next steps proposed for VU Reptiles due to time constraints.	2
REP	*Oligodon meyerinkii*	Sulu short-headed snake	Not Included	VU	No specific next steps proposed for VU Reptiles due to time constraints.	2
REP	*Crocodylus mindorensis*	Philippine Crocodile	CR	CR	None. Dedicated Plan exists.	NC
REP	*Hologerrhum dermali*	Crombie's Stripe-lipped Snake	Not Included	VU	Recommend declaring an area of Critical Habitat immediately (within a year). (Also, existing Dedicated Plan + in NAPERSEP2016).	2

REP	*Ophiophagus luzon*	Luzon	Please see comment	VU	No specific next steps proposed for VU Reptiles due to time constraints.	2
REP	*Pseudogekko hungkag*	Bicol Hollow-dwelling Forest Gecko	Not Included	EN	Survey remnant lowland patches to identify Critical Habitat/populations. Potential connection with lowland habitat protection/Critical Habitat designation implemented for Philippine Warty Pig or flying fox. Promote alternative livelihood projects.	2
REP	*Pseudogekko isapa*	Romblon False Gecko	Not Included	VU	No specific next steps proposed for VU Reptiles due to time constraints.	2
REP	*Gekko gigante*	Gigante Narrow-disked Gecko	Not Included	VU	No specific next steps proposed for VU Reptiles due to time constraints.	2
REP	*Cyrtodactylus gubaot*	gubaot	Not Included	EN	No specific next steps proposed for VU Reptiles due to time constraints.	2
REP	*Parvoscincus beyeri_new*	beyeri_new	Not Included	VU	No specific next steps proposed for VU Reptiles due to time constraints.	2
REP	*Parvoscincus tikbalangi*	Sierra Madres Aquatic Skink	Not Included	CR	Proposed Action Plan for closed canopy specialists. Proposed ASEAN Heritage Park (AHP) programme. KBA designation/expansion	2
REP	*Parvoscincus manananggalae*	Aurora Aquatic Skink	Not Included	VU	No specific next steps proposed for VU Reptiles due to time constraints.	2
REP	*Parvoscincus sisoni*	Sison's Cloud Forest Skink	Not Included	EN	Monitoring to prevent disturbance (but capacity and funds are lacking). Protection for Madja-as, Mt. Baloy, & Mt. Nangtud. Research into alternative livelihood options such as chickens, pigs etc.	2
REP	*Brachymeles cebuensis*	Cebu small worm skink	Not Included	VU	No specific next steps proposed for VU Reptiles due to time constraints.	2
REP	*Brachymeles samad*	Eastern Visayas Slender Skink	Not Included	VU	No specific next steps proposed for VU Reptiles due to time constraints.	2

REP	*Brachymeles vermis*	vermis	Not Included	VU	Find out more about what is being done and what is needed. Species may benefit from work on species like the Sulu hornbill. Engage with BARMM and local government	2
REP	*Ramphotyphlops suluensis*	Sulu Blind Snake	Not Included	VU	No specific next steps proposed for VU Reptiles due to time constraints.	2
REP	*Varanus olivaceus*	olivaceus	VU	VU	No specific next steps proposed for VU Reptiles due to time constraints.	2
REP	*Varanus mabitang*	Panay Monitor Lizard	CR	EN	No specific next steps identified.	2
MAM	*Crateromys australis*				Include in endemic rodent and shrew action plan	3
REP	*Brachymeles mapalanggaon*				No specific next steps proposed for VU Reptiles due to time constraints.	2
REP	*Trimeresurus mcgregori*				Proposed Harvesting Plan. Enforcement of legislation and training of customs officers. Research to understand biology and population status	2
REP	*Parvoscincus banahaoensis*				No specific next steps proposed for VU Reptiles due to time constraints.	2
REP	*Opisthotropis alcalai*				None considered needed apart from further field studies to determine whether the species occurs more widely on the Zamboanga Peninsula	2
REP	*Pseudogekko sumiklab*				No specific next steps proposed for VU Reptiles due to time constraints.	2