



**Myanmar National Red List
Training and Assessment Workshop
Forest Research Institute, Yezin, Naypyitaw
23-27 July 2018**

Background

The Myanmar National Biodiversity Strategy and Action Plan 2015-2020 includes Target 12.3 “By 2020, a National Red List of selected taxa has been produced” and Actions 12.3.1 “Conduct Red List assessments for key taxa, with a particular focus on endemic species” and 12.3.2 “Hold training workshops to build capacity on application of the Red List categories and criteria”.

In July 2017, in partnership with the Ministry of Natural Resources and Environmental Conservation’s (MONREC’s) Nature and Wildlife Conservation Division (NWCD), WCS Myanmar, and WWF Myanmar, IUCN organized a 5-day Red List Assessor training workshop at the Forest Research Institute (FRI), Yezin, near Naypyitaw. 30 participants attended, representing organizations including the Myanmar Forest Department, WCS, WWF, FFI, Instituto Oikos, Myanmar Floriculturalist Association, Taunggyi University, Yangon University, Mandalay University, and Myitkyinar University.

In addition to building national capacity in use of the Red List Categories and Criteria, this event was intended to initiate the process of developing a Myanmar National Red List. It was followed by the formal establishment of five National Red List Working Groups – focusing on mammals, birds, reptiles and amphibians, plants, and aquatic species, approved by the MONREC Minister.

In July 2018, IUCN continued to support the development of a Myanmar National Red List by facilitating a second Red List workshop at FRI, Naypyitaw, again in partnership with NWCD, WCS Myanmar, and WWF Myanmar. This event consisted of three days of Red List Assessor training for all members of the Myanmar National Red List Working Groups (23-25 July), followed by two days of conducting national-level assessments of reptile species with the Myanmar National Red List Reptiles and Amphibians Working Group (26-27 July).

On the 26 July, taking advantage of the expertise present, a parallel session was organized by NWCD for members of the Myanmar National Red List Working Groups to discuss amendments to the list of species protected under Myanmar’s recently-enacted 2018 Biodiversity Law. More than 1,200 species were proposed to be “Completely Protected”, “Normally Protected”, or “Seasonally Protected”.

Red List Training

A total of 69 participants received three days of training in application of the IUCN Red List Categories and Criteria. These trainees were members of the five Myanmar National Red List Working Groups, and represented organizations including NWCD, FRI, WCS, WWF, FFI, Oikos, TSA, BANCA, MBNS, FREDA, Myeik University, Myitkyina University, Bago University, Mandalay University, and Yangon University. Please see Annex 1 for a list of participants.

The training was delivered by James Tallant (independent consultant) and Monika Böhm (Research Fellow, Zoological Society of London), both qualified IUCN Red List trainers with extensive experience delivering Red List training and supporting National Red List processes. The training consisted of a slightly condensed version of the standard IUCN Red List training curriculum. Ad-hoc translation to Myanmar language was provided by Kalyar Platt (Turtle Survival Alliance). Training topics included:

- introduction to the Red List;
- the process of conducting a Red List assessment;
- key terms and concepts;
- data quality and uncertainty;
- the nine Red List categories;
- the five Red List criteria and their application at the global level;
- applying the Red List categories and criteria to national and regional contexts;
- required and recommended supporting information for Red List assessments; and
- additional resources and support available.

By the end of the training, all participants had demonstrated competence in applying the IUCN Red List Categories and Criteria to real data, including assessments of endemic species, and national-level assessments of more widely distributed, non-endemic species. However, some gaps in knowledge and understanding likely remain, and some additional training will be necessary to accompany the national assessments planned for later in 2018, and 2019.

National Red List Assessments

The two Red List trainers and seven members of the Myanmar National Red List Reptiles and Amphibians Working Group spent two days conducting national-level assessments of reptile species. Many of these assessments were informed by the draft global reptile assessments conducted in 2017 that are currently awaiting publication on the global red list.

By the end of the workshop, a total of 69 draft assessments had been completed, and a further 2 started, including 25 species of freshwater turtles, 5 species of marine turtles, 1 species of crocodile, 34 species of lizards, and 5 species of snakes. These 71 draft assessments constitute a significant proportion of the 295 species of reptiles (turtles, lizards, snakes, and crocodiles) found in Myanmar (of which 172 are snake species). These draft assessments have been edited (for language, clarity, etc.) by the Red List trainers, and submitted to the Working Group and workshop organizers. Please see Annex 2 for a summary of the draft results.

In order to complete a Myanmar National Red List of Reptiles, the following steps need to be completed:

- complete draft assessments started during the assessment workshop, adding additional information unavailable during the workshop (such as some spatial data);
- draft assessments for the 55 lizard and 167 snake species not assessed during the workshop (this may require convening a second and even third assessment workshop);
- complete distribution maps for all reptile species (several of these were started during the assessment workshop);
- arrange for all draft assessments to be reviewed by suitable experts, to confirm that important data has not been overlooked, and that the Red List Categories and Criteria have been applied correctly;
- finalize assessments based on the reviewers' input;
- publish final assessments in a suitable format (online, and/or as a pdf or physical publication).

In order to complete a comprehensive Myanmar National Red List of all major groups, the following steps are recommended:

- complete the Myanmar National Red List of Reptiles (see above);
- consider increasing national capacity for Red Listing by arranging for one or more Myanmar nationals to be trained as IUCN Red List trainers by the IUCN Red List Unit;
- choose the next priority species group for assessment, and confirm the list of taxa to be assessed;
- compile all available data on taxa to be assessed, populate assessment forms with background information, and draft distribution maps prior to the assessment workshop (this will greatly increase the number of assessments that can be completed during an assessment workshop);
- organize multi-day assessment workshop, accompanied by refresher (1-day) training; and
- produce draft assessments, review, finalize, and publish.

Annex 1. List of Participants

No.	Name	Organization	Position
1	U Win Naing Thaw	NWCD	Director
2	Dr. Tin Zar Kywe	NWCD	Assistant Director
3	Daw Hsu Sandar Aung	NWCD	Staff Officer
4	Daw Khin Nyein San	NWCD	Staff Officer
5	Daw Khin Htay	NWCD	Staff Officer
6	U Nay Zar Soe	NWCD	Ranger
7	Daw Thaw Min Min Moe	NWCD	Forester
8	Daw Thet Myat Yadanar Aye	FD	Range Officer
9	Dr. Aye Aye Cho	Myeik University	Associate Professor
10	Dr. Moe Thida Htway	Myeik University	Assistant Lecturer
11	Dr. Khin Swe Oo	Myeik University	Lecturer
12	U Bo Bo Kyaw	Myeik University	Demonstrator
13	Dr. Kay Thi Mya	Myeik University	Associate Professor
14	Dr. Khin Myo Thant	Myeik University	Associate Professor
15	Dr. San San Myint	Myint Kyi Na University	Professor
16	Dr. Lazat Lum Nyo	Myint Kyi Na University	Lecturer
17	Dr. Aung Lu	Myint Kyi Na University	Associate Professor
18	Dr. Khin Swe Wynn	Bago University	Head/Professor
19	Dr. Thein Thein Soe	Bago University	Lecturer
20	Dr. Myint Mtint Than	Bago University	Associate Professor
21	Dr. Moe Moe Shwe	Bago University	Head/Professor
22	Dr. Thant Zaw Win	Bago University	Assistant Lecturer
23	Dr. Nay Myo Hlaing	Mandalay University	Lecturer
24	Dr. Naw Dolly Wil Bur	Mandalay University	Professor
25	Dr. Moe Moe Khing	Mandalay University	Associate Professor
26	Dr. Kyaw Zay Moe	Yangon University	Lecturer
27	Daw Khin Kyi	UFES	Lecturer
28	Daw Khin Mar Myint	FRI	Assistant Researcher
29	Daw Phyu Phyu Hnin	FRI	Research Assistant
30	Daw Nilar Pwint	FD	Range Officer
31	Daw Khin Myo Htew	FD	Range Officer
32	U Kyaw Zin Aung	FD	Ranger
33	U Myint Kyaw	FD	Ranger
34	U Than Hlaing	FD	Ranger
35	U Win Zaw Lunn	FD	Range Officer
36	U Zaw Win Khaing	FD	Range Officer
37	Daw Lain Shin Man	FD	Ranger
38	U Kyaw Kyaw Naing	FD	Ranger
39	U Nyain Chan	FFI	Fish Expert (Fresh)
40	U Zaw Lunn	FFI	Fish Expert (Fresh)
41	U Aung Ko Lin	FFI	Field Biologist
42	U Aung Lin	FFI	Field Coordinator
43	U Ngwe Lwin	FFI	Mammal Expert
44	U Paing Soe	WWF	
45	Dr Thiri Dawei Aung	BANCA	Bird Expert
46	U Myo Min Htun	BANCA	
47	Daw Ei Thinzar Aung	BANCA	Program Assistant
48	Dr. Myint Thein	Htoo Zoo	Sr. Chief. Vet
49	U Kyi Soe Lwin	Htoo Zoo	
50	Dr. Tint Swe	MSAM	Fish Expert (Marine)
51	U Tint Htun	MSAM	Mammal Expert (Marine)
52	Dr. Thein Aung	MBNS	Bird Expert
53	U Lay Win	MBNS	Bird Expert
54	Dr. Thet Yu Nwe	FREDA	Plant Expert
55	U Toe Tat Zay Ya	OIKOS	Junior Programme Coordinator
56	U Win Lin Aung	OIKOS	project assistant
57	U Thet Zaw Naing	WCS	Bird Expert
58	U Hla Naing	WCS	Northern Landscape Coordinator
59	Dr. Kalyar Platt	WCS	Director of TSA
60	Daw Me Me Soe	WCS	Researcher
61	U Swann Htet Naing Aung	WCS	Research Assistant

62	U Mya Than Htun	WCS	Marine Coordinator
63	Dr. Naw May Lay Thant	WCS	National Landscape Coordinator
64	U Ye Lin Aung	WCS	Research Assistant
65	U Kyaw Khaung Thant Zin	WCS	Research Assistant
66	Daw Theint Thandar Bol	WCS	Research Assistant
67	Daw Pin Oo San	WCS	Research Assistant
68	U Kyaw Zaya	WCS	GIS Technician
69	U Win Thuya Htut	WCS	GIS Technician

Annex 2 Summary of Draft Results

Order	Suborder	Family	Genus and Species	Endemic to Myanmar ?	Published Global RL Status	Draft Global RL Status	Draft National RL Status		
Testudines	Cryptodira	Geoemydidae	<i>Heosemys depressa</i>		CR	CR	CR		
			<i>Heosemys grandis</i>		VU	CR	CR		
			<i>Heosemys spinosa</i>		EN	EN	CR		
			<i>Batagur trivittata</i>	Y	EN	CR	CR		
			<i>Batagur affinis</i>		CR	CR	CR		
			<i>Batagur baska</i>		CR	CR	CR		
			<i>Cuora mouhotii</i>		EN	EN	CR		
			<i>Cuora amboinensis lineata</i>	Y	VU	EN	CR		
			<i>Cyclemys fusca</i>	Y		LC	LC		
			<i>Cyclemys oldhamii</i>			EN	LC		
			<i>Siebenrockiella crassicollis</i>		VU	EN	CR		
			<i>Morenia ocellata</i>	Y	VU	EN	EN		
			<i>Melanochelys trijuga edeniana</i>	Y	LR/NT	LC	VU		
			<i>Malayemys subtrijuga</i>		VU	NT	EN		
			Testudinidae (tortoises)	<i>Manouria emys</i>		EN	CR	CR	
		<i>Manouria impressa</i>			VU	EN	CR		
		<i>Geochelone platynota</i>		Y	CR	CR	CR		
		<i>Indotestudo elongata</i>			EN	CR	CR		
		Trionychidae (soft-shelled turtles)	<i>Dogania subplana</i>		LR/LC	LC	VU		
			<i>Chitra vandijki</i>	Y		CR	CR		
			<i>Nilssonina formosa</i>	Y	EN	CR	CR		
			<i>Lissemys scutata</i>	Y	DD	LC	LC		
			<i>Lissemys punctata</i>		LR/LC	VU	LC		
		Platysternidae	<i>Amyda ornata phayrei</i>	Y		CR	CR		
			<i>Platysternon megacephalum</i>		EN	CR	CR		
		Cheloniidae (marine turtles)	<i>Chelonia mydas</i>		EN	EN	CR		
			<i>Caretta caretta</i>		VU		NA		
			<i>Lepidochelys olivacea</i>		VU	VU	CR		
			<i>Eretmochelys imbricata</i>		CR	CR	CR		
		Dermochelyidae (leatherbacks)	<i>Dermochelys coriacea</i>		VU	VU	CR		
		Squamata	Lacertilia (lizards)	Agamidae (agamas and frilled lizards)	<i>Acanthosaura crucigera</i>			LC*	NT
					<i>Acanthosaura lepidogaster</i>		LC	LC	LC
<i>Bronchocela cristatella</i>						LC	VU		
<i>Calotes chincollium</i>	Y				LC	LC*	NT		
<i>Calotes emma</i>						LC	LC		
<i>Calotes htunwini</i>	Y					LC*	LC		
<i>Calotes irawadi</i>	Y					LC*	LC		
<i>Calotes jerdoni</i>						LC	DD		
<i>Calotes mystaceus</i>						LC	LC		
<i>Calotes versicolor</i>						LC	LC		
<i>Draco blanfordii</i>						LC	LC		
<i>Draco maculatus</i>					LC	LC	LC		
<i>Draco melanopogon</i>						LC	NA		
<i>Draco taeniopterus</i>					LC	LC*	LC		
<i>Japalura hamptoni</i>	Y					DD*	DD		
<i>Japalura planidorsata</i>						LC	CR		
<i>Japalura sagittifera</i>							DD		
<i>Japalura yunnanensis</i>						LC	DD		
<i>Leiolepis belliana</i>						LC	LC		
<i>Leiolepis peguensis</i>	Y					LC	LC		
<i>Physignathus cocincinus</i>						VU	NA		
<i>Pseudocalotes kingdonwardi</i>						LC	NT		
<i>Pseudocalotes microlepis</i>						LC	LC		
<i>Pseudocalotes</i>						NT	VU		

			kakhienensis					
			Ptyctolaemus collicristatus	Y			LC* LC	
			Ptyctolaemus gularis				LC LC	
		Anguinidae (slowworms)	Dopasia gracilis				VU NT	
		Gekkonidae (geckos)	Cnemaspis siamensis				LC* DD/NA	
			Cyrtodactylus aequalis	Y				DD* Started
			Cyrtodactylus brevidactylus	Y	DD			EN* CR
			Cyrtodactylus rubidus					Potentially NA
			Gehyra mutilata					LC Started
			Gekko gecko					LC EN
			Ptychozoon lionotum			LC		LC* EN
		Varanidae (monitor lizards)	Varanus bengalensis			LC	LC VU	
			Varanus salvator			LC	LC	VU VU
	Serpentes (snakes)	Pythonidae	Python reticulatus				LC* VU	
			Python molurus					NT VU
		Colubridae (typical snakes)	Rhadinophis prasina			LC		DD
		Elapidae (elapids)	Naja kaouthia			LC	LC	EN
Crocodylia	Crocodylia	Crocodylidae	Crocodylus porosus			LR/LC	NT	

*denotes assessments submitted to the IUCN Red List for publication

Annex 3. Workshop Agenda

Day 1: Monday 23rd July 2018

Time	Event	Trainer/ Speakers
08:30	Registration	
09:00	Session 1: Welcome and Introduction to the Workshop <ul style="list-style-type: none"> • Welcoming remarks (MONREC) • Welcome & Introduction of Trainers • Objectives, schedule, methodology • Participant introductions 	MONREC Red List Trainer 1 & 2
09:30	Session 2: From Raw Data to Red List: the IUCN Red List Assessment Process <ul style="list-style-type: none"> • Presentation: An introduction to the IUCN Red List • Presentation: From Raw Data to Red List: the Red List assessment process and role of the Red List Assessor 	Red List Trainer 2
10:00	Session 3: Key Terms and Concepts used in the Red List Criteria <ul style="list-style-type: none"> • Presentation: Terms used in the Red List Criteria 	Red List Trainer 1
10:30	Coffee Break & Group Photo	
11:00	<i>(Session 3 continued)</i> <ul style="list-style-type: none"> • Presentation: Terms used in the Red List Criteria <i>(continued)</i> • Exercise: Terms used in the IUCN Red List Criteria 	Red List Trainer 1
12:00	Lunch	
13:00	Session 4: Red List Categories, Data Quality & Uncertainty <ul style="list-style-type: none"> • Presentation: IUCN Red List Categories • Presentation: Data quality & uncertainty • Exercise: Red List Categories & Data Quality 	Red List Trainer 2
14:00	Session 5: Red List Criteria: criterion A <ul style="list-style-type: none"> • Presentation: Red List Criterion A • Exercise: Using the IUCN Red List Criteria – Criterion A 	Red List Trainer 1
15:00	Coffee break	
15:30	<i>(Session 5 continued)</i> <ul style="list-style-type: none"> • Exercise: Using the IUCN Red List Criteria – Criterion A 	Red List Trainer 1
15:50	Session 6: Red List Criteria: criterion B <ul style="list-style-type: none"> • Presentation: Red List Criterion B • Exercise: Learning the Red List Categories & Criteria – Criterion B 	Red List Trainer 2
16:50	Wrap-up, Discussion and Reflections on the Day <ul style="list-style-type: none"> • Questions & Briefing for Day 2 	Red List Trainer 1 & 2

17:00	End of Day 1
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Day 2: Tuesday 24th July 2018

Time	Event	Trainer/ Speakers
09:00	Introduction to the day & question from the day before	Red List Trainer 1 & 2
09:30	<i>Session 7: Red List Criteria: criteria C, D & E</i> <ul style="list-style-type: none"> • Presentation: Red List Criteria C, D & E • Exercise: Learning the Red List Categories & Criteria – Criteria C, D & E 	Red List Trainer 2
10:30	Coffee Break	
11:00	<i>Session 8: Selecting the Final Red List Category & Criteria</i> <ul style="list-style-type: none"> • Presentation: The Final Category and Criteria • Exercise: Final Category & Criteria 	Red List Trainer 1
11:15	<i>Session 9: Assessing species for the IUCN Red List: some examples</i> <ul style="list-style-type: none"> • Exercise: Global Assessments – case studies provided by IUCN 	Red List Trainer 2
12:00	Lunch	
13:00	<i>(Session 9 continued)</i> <ul style="list-style-type: none"> • Exercise: Global Assessments – case studies provided by IUCN 	Red List Trainer 2
13:30	<i>Session 10: Assessing endemic species for the IUCN Red List</i> <ul style="list-style-type: none"> • Exercise: Endemic Assessments – case studies provided by participants 	Red List Trainer 1
15:00	Coffee Break	
15:30	<i>Session 11: Using the Red List Criteria for regional and national Red Lists</i> <ul style="list-style-type: none"> • Presentation: The importance of regional Red Lists • Presentation: Using the IUCN Red List Categories & Criteria for regional assessments • Questions & Discussion 	Red List Trainer 2
16:10	<i>Session 12: Assessing species for regional Red Lists: Non-endemics</i> <ul style="list-style-type: none"> • Exercise: Assessing non-endemic species for a national/regional Red List 	Red List Trainer 1
17:00	Wrap-up, Discussion and Reflections on the Day <ul style="list-style-type: none"> • Questions & Briefing for Day 3 	Red List Trainer 1 & 2
17:10	End of Day 2	

Day 3: Wednesday 25th July 2018

Time	Event	Trainer/ Speakers
09:00	Night Thoughts and introduction to the day	Red List Trainer 1 & 2
09:30	<i>(Session 12 continued)</i> <ul style="list-style-type: none"> • Exercise: Assessing non-endemic species for a national/regional Red List 	Red List Trainer 1

10:00	Session 13: Supporting Information for Red List assessments <ul style="list-style-type: none"> • Presentation: Importance of supporting information for Red List assessments 	Red List Trainer 2
10:30	Coffee Break	
11:00	Session 14: To Publish or Not to Publish? Reviewing assessments for the IUCN Red List <ul style="list-style-type: none"> • Exercise: To publish or not to publish? 	Red List Trainer 1
12:00	Lunch	
13:00	Session 15: The Importance of Appropriate Data Storage and Management <ul style="list-style-type: none"> • Presentation: Importance of Appropriate Data Storage and Management • Questions & Discussion 	Red List Trainer 2
14:00	Session 16: Uses of Red List data <ul style="list-style-type: none"> • Presentation: Uses of Red List data • Questions & Discussion 	Red List Trainer 1
15:00	Coffee Break	
15:30	Session 17: Discussion on workplan for the National Red List of Threatened Species <ul style="list-style-type: none"> • Questions & Discussion 	Organisers, Red List Trainer 1 & 2
16:00	Session 18: Wrap-up of training workshop <ul style="list-style-type: none"> • Feedback Forms, Final Thoughts and Reflections on the Training Workshop, and Presentation of Certificates • Briefing for Day 4 	Red List Trainer 2
17:00	End of Day 3	

Day 4: Thursday 26th July 2018

Time	Event		Trainer/ Speakers
	National Red List Assessments	Consultation – Updating National Protected Species List	
08:30	Introduction to Day 4. Discuss Objectives of Days 4	Introduction to Consultation Objectives of Days 4	MONREC, Red List Trainer 1 & 2
09:00	Discuss outstanding questions following days 1-3	Consultation Session 1	Participants
09:30	Conduct National Assessments: Session 1	Consultation Session 2	Participants
10:30	Coffee Break		
11:00	Conduct National Assessments: Session 2	Consultation Session 3	Participants
12:00	Lunch		

13:00	Conduct National Assessments: Session 3	Consultation Session 4	Participants
15:00	Coffee Break		
15:30	Discussion: next steps in workplan	Discussion: next steps in workplan	Participants, Trainer 1 & 2
16:30	Wrap Up Assessment Workshop & Updating National Protected Species List		MONREC, Red List Trainer 1 & 2
17:00	End of Day 4		

Day 5: Friday 27th July 2018

Time	Event	Trainer/ Speakers
	National Red List Assessments	
09:00	Introduction to Day 5. Discuss Objectives of Days 5	Reptile group, Red List Trainer 1 & 2
09:30	Conduct National Assessments: Session 1	Reptile group, Red List Trainer 1 & 2
10:30	Coffee Break	
11:00	Conduct National Assessments: Session 2	Reptile group, Red List Trainer 1 & 2
12:00	Lunch	
13:00	Conduct National Assessments: Session 3	Reptile group, Red List Trainer 1 & 2
15:00	Coffee Break	
15:30	Conduct National Assessments: Session 4	Reptile group, Red List Trainer 1 & 2
16:50	Wrap Up Assessment Workshop	Reptile group, Red List Trainer 1 & 2
17:00	End of Day 5	