

The Role of the IUCN Marine Turtle Specialist Group in Setting Priorities for Sea Turtle Conservation

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Annual MTSG General Meeting 2006

Sea Turtle Symposium XXVI on the Island of Crete served as the venue for the 2006 Annual General Meeting (AGM) of the MTSG, which took place from 09:00 – 13:00 on Saturday, April 8. A new format was adopted for this AGM, different from recent years in that the Co-Chairs invited presentations from Regional Vice Chairs on MTSG-related activities in their respective areas of influence. Following these presentations, an open-mike session was conducted at which numerous issues arose pertaining to priority-setting, and in particular the procedures, processes, and controversy relating to the Red Listing of sea turtles. Given the importance of this topic to the work of the MTSG and its implications on conservation and research as a whole for our field, the authors felt that it would be a worthy topic to address in this article. Full minutes from the AGM are available on the MTSG website <<http://www.iucn-mtsg.org>>, along with copies of the presentations made by the Regional Vice-Chairs. As always, MTSG members are encouraged to review these materials, and to communicate directly with the Co-Chairs at <mtsg-co-chairs@conservation.org>, or among members of the regional sub-groups using the relevant email listserves.

Setting Priorities for Sea Turtle Conservation

The MTSG envisions “*marine turtles fulfilling their ecological roles on a healthy Planet where all peoples value and celebrate their continued survival.*” This is a worthy direction in which to head for sure, but as we settle-in to determining

how we actually move toward it, we find ourselves wondering where to begin, and how to proceed in the face of numerous constraints. Priority setting is critical to the success of any conservation effort. The MTSG approaches global-scale taxonomic priority setting through the IUCN Red Listing process, and we also use IUCN Red Listing methodologies to take taxonomic priority setting to the regional scale. The MTSG uses the annual Burning Issues Assessment to further refine priorities that combine taxonomic with hazard-based considerations at global, regional and local scales. Moreover, the MTSG partners with the State of the World’s Sea Turtles (SWoT) initiative to develop a global database which, over time will allow our community to monitor global-scale trends. The first *State of the World’s Sea Turtles (SWoT) Report* was released on March 20. It contains the first-ever comprehensive, up-to-date, global-scale map of leatherback nesting, plus a variety of articles presenting a clear picture of the present status of sea turtles and related conservation efforts around the world. A new website was launched at <<http://www.SeaTurtleStatus.org>>, as a source of information and conservation tools associated with SWoT. In the sections that follow, we provide updates on these endeavors.

Red Listing

One of the responsibilities of the MTSG is to use its global network to conduct regular assessments of sea turtle species, to be included in the IUCN-World Conservation Union’s *Red List of Threatened Species*, which attempts to provide a global overview of plants and animals at risk of

extinction. *Red List* assessments have been extremely valuable in defining conservation priorities such as Important Bird Areas (IBAs), Key Biodiversity Area's (KBAs), as well as Hotspots, Major Tropical Wilderness Areas, and Eco-Regions. The *Red List* criteria have evolved over decades, and are generalized to be useful for all types of organisms. Not surprisingly, the "one size fits all" framework of the Red Listing Criteria poses distinct problems when assessing things in Nature. For instance, the criteria call for analyzing data for "ten years or three generations, whichever is longer," which for sea turtles could require reliable data sets of nearly one hundred years duration, something rare for sea turtles. Because of

the nature of sea turtles, "Endangered" on the *Red List* may not equate to a high risk of extinction in the wild, as it might with lesser ranging taxa such as amphibians or terrestrial mammals; moreover, the *Red List* cannot appropriately address threats to smaller populations, nor provide regional or local resolution requisite for conservation planning on these subglobal scales. The shortcomings of the *Red List* criteria for sea turtles have been addressed on several past occasions (Mrosovsky 2003, Mrosovsky 2006; Seminoff 2004; Webb & Carillo 2000). Nonetheless, despite their limitations, evaluations of sea turtle status as per the *Red List* criteria are a valuable tool for influencing policy and for conservation priority-setting.

Table 1. Summary of Red List Status for the world's seven sea turtle species.

<i>Species</i>	<i>Red List Status</i>	<i>Year Assessed</i>	<i>Assessor</i>
Leatherback	Critically Endangered	2000	L. Sarti- Martinez
Hawksbill	Critically Endangered ¹	1996	RL S & PS
Kemp's ridley	Critically Endangered	1996	MTSG
Olive ridley	Endangered ^{2,3}	1996	RL S & PS
Loggerhead	Endangered	1996	MTSG
Green	Endangered	2004	J. Seminoff
Flatback	Data Deficient ⁴	1996	RL S & PS

¹ This revised assessment is a ruling made by the Red List Standards and Petitions Subcommittee (RL S&PS) in response to a petition that challenged the Critically Endangered status (for further details see the IUCN SSC web site).

² This revised assessment is a ruling made by the Red List Standards and Petitions Subcommittee (RL S&PS) in response to a petition that challenged the Endangered status (for further details see the IUCN SSC web site).

³ The MTSG is currently drafting a response to an official appeal to IUCN for MTSG to develop a new assessment based on 2001 Red List Criteria.

⁴ This revised assessment is a ruling made by the Red List Standards and Petitions Subcommittee (RL S&PS) in response to a petition that challenged the Vulnerable status (for further details see the IUCN SSC web site).

Global Red List assessments are intended to be updated every 10 years. Done properly, a *Red List* Assessment requires broad consultation and can take thousands of hours to complete. Given the enormity of the task and the available volunteer-power to conduct it, the MTSG has lagged behind schedule in conducting re-assessments, though we intend to catch-up in the coming three years. In cases in which assessments were conducted more than ten years ago, the most recently conducted assessment is maintained in the *Red List* (Table 1). The MTSG Red List Focal Point is Jeffrey Seminoff, assessor of the 2004 Green Turtle

Assessment, who serves as the official MTSG liaison with the IUCN Red List Authority in the UK, as well as the coordinator of the individuals and teams involved in the re-assessment work. An itinerary for completion of the remaining assessments has been developed by the authors (Table 2), compilers have been selected, and in some cases are already at work. In addition, the MTSG has raised money for stipends to the assessors and their collaborators, and to offset communications and research costs involved in preparing the global re-assessments.

Table 2. Summary of ongoing MTSG sea turtle assessments

<i>Species</i>	<i>Spatial Resolution</i>	<i>Assessor Expected</i>	<i>Completion Date</i>
Hawksbill	Global	J. Mortimer	2006
Loggerhead	Regional (Mediterranean)	B. Lazar w/others	2006
Leatherback	Regional (Mediterranean)	P. Casale	2006
Green	Regional (Mediterranean)	A. Demetropolous	2006
Olive ridley	Global	A. Abreu-Grobois w/others	2007
Loggerhead	Global	B. Lyon	2008

A regional approach would clearly benefit sea turtle status assessments and conservation efforts, but it is important to keep in mind that such assessments may not always qualify for inclusion on the *IUCN Red List*. Simply stated, the *Red List* only includes regional subpopulations that are genetically isolated, a qualification that is impossible to meet for most regional populations. For a highly migratory taxon such as sea turtles, the global crisscrossing undertaken by individuals often maintains high gene flow, and thus, lack of isolation of many stocks. However, exclusion from the *Red List* is by no means a reason not to undertake such assessments. It is with this in mind that the MTSG is working toward the development of Regional assessments for sea turtles throughout the world; the first of which are MTSG assessments for green turtles, loggerheads, and leatherbacks in the Mediterranean Sea. To complete similar assessments for all regions and all species will take years, but we are nonetheless confident that their development will ultimately lead to more informed conservation planning and action.

On April 27, 2006, the MTSG Co-Chairs and Red List Focal Point, after consultation with Mediterranean Regional Vice Chair, Dimitris Margaritoulis, elected to withdraw the listing of the Mediterranean green turtle as Critically Endangered. Although there is equivocal evidence of genetic isolation for this regional population (an important qualification for inclusion on the *Red List*), the lack of documentation for the original Mediterranean green turtle assessment called for a removal of this listing. Further, because the original assessing organization no longer exists, we were unable to answer important questions about what data were used in the original assessment.

However, as mentioned, the MTSG (with Andreas Demetropolous as the assessor) is currently drafting a regional assessment for green turtles in the Mediterranean. Although this document was originally planned to be a non-*Red List* assessment (see above), we will submit this assessment for inclusion in the *Red List* if, as indicated by some of the members from the Mediterranean, we are able to unequivocally demonstrate the genetic distinctiveness and isolation of this regional population.

The Burning Issues Assessment

The Burning Issues Assessment endeavors to go a step further than the global-scale Red List, with the intent to encourage on-the-ground conservation action in the places where experts agree they are most urgent and can have the largest impact in preventing extinctions. The first Burning Issues Assessment was undertaken in late 2003 (see [MTN 104:20-22](#)), and this was followed up by a second Burning Issues Assessment (BI2) conducted by a group of MTSG members hailing from several countries and representing knowledge of all the world's major sea turtle stocks, who gathered in Washington, DC in August 2005 (see [MTN 110:13-15](#)). One of the products from this gathering was a draft Top Ten List of most threatened global sea turtle populations.

The Top Ten List draws attention to some of the sea turtle *populations* that are most in need of *urgent* conservation attention, considering one or more of the following criteria: recent precipitous declines, small population size, high degree of threat, or irreplaceable nature. It is a dynamic assessment that attempts to include all the major regions where sea turtles live, and it is based on

best available data and expert opinion as its principle resources. The Top Ten List is reviewed annually to assure its accuracy and timeliness. It is part of a larger priority-setting process for sea turtle research and conservation that also includes a list of Critical Research Needs, recognizing that for many areas of the world and populations of sea turtles we simply do not have enough data to accurately assess urgency and degree of threat.

The results of the BI2 meeting were used in the production of a poster that outlines the global Hazards to sea turtles, and the Top Ten Most Threatened Sea Turtle Populations; copies of the poster can be seen at <http://www.SeaTurtleStatus.org>, or obtained by contacting the MTSG Program Officer, Brian Hutchinson (see address above). Drs. Alan Bolten and Milani Chaloupka are Co-Chairing BI3, to take place in Washington, DC in August 2006. The BI3 gathering will be preceded by a membership-wide email survey to help fine-tune and add depth to the Top Ten List.

Conclusion

The realities are these: Nowhere on Earth are sea turtles thriving as they have in past centuries, and the ubiquitous threats to their continued survival are more intense than ever in history. There are sizeable gaps in even our simple descriptive knowledge of sea turtles and their habitats, and an understanding of their “ecological roles” is still well outside our grasp, floating in a sea of inter-related mysteries about life on Earth. To make things even more challenging, even if we did know

enough about turtles to properly conserve them, we would still need to muster the needed financial and human resources, not to mention the political will to take on the countless conservation interventions that would be needed to properly pursue the MTSG’s audacious vision.

Time is not on our side, and we cannot wait to act. We must approach our conservation actions as wisely as we know how; we must constantly measure and monitor our results; and we must be prepared to change our approaches as new information becomes available. Hence, it is of the utmost importance that we select priorities as strategically as possible, always based on the best available science, and the best available scientific opinion when data are lacking. We must focus our research and conservation attention on those taxa, regions, habitats and hazards that are most critical to preventing extinctions and other irreversible damage.

Broad participation and consensus building is important to the success of all of the aforementioned priority setting efforts. We again encourage the nearly 300 MTSG members worldwide to become more engaged with the work of the MTSG through such efforts as the IUCN Red Lists, the Burning Issues Assessment, and SWoT. Visit our website, use our listserves, participate in the numerous annual gatherings where subsets of us congregate in pursuit of the MTSG vision. We are a powerful volunteer network that depends on each of you to contribute time and expertise.

Literature Cited

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