

Re-evaluating the IUCN Red List status of Northwest Atlantic Leatherbacks



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on behalf of the Northwest Atlantic Leatherback Working Group

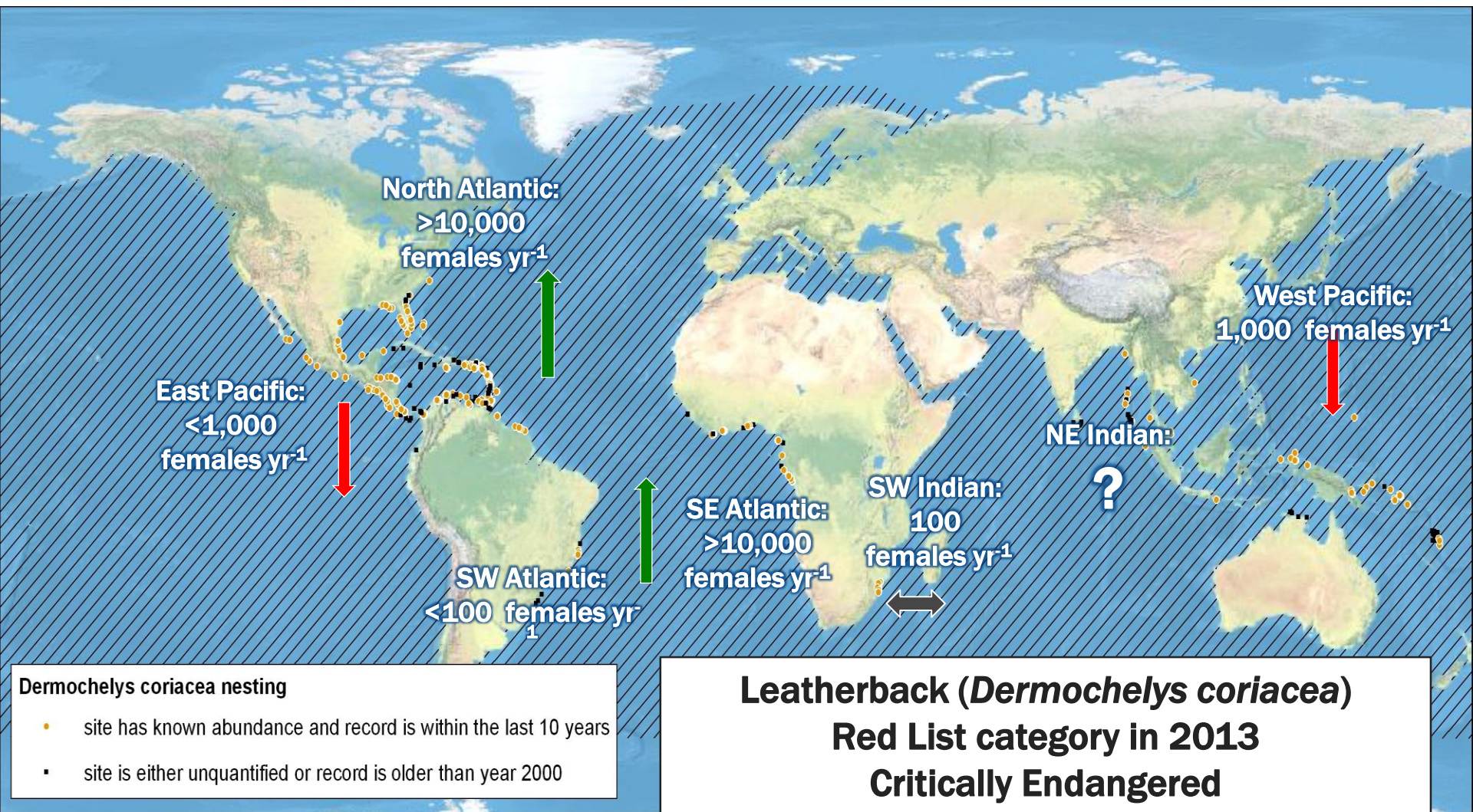
20 Mar 2019 | WIDECASST Annual General Meeting | Paramaribo, Suriname

Categories: Risk of imminent Extinction

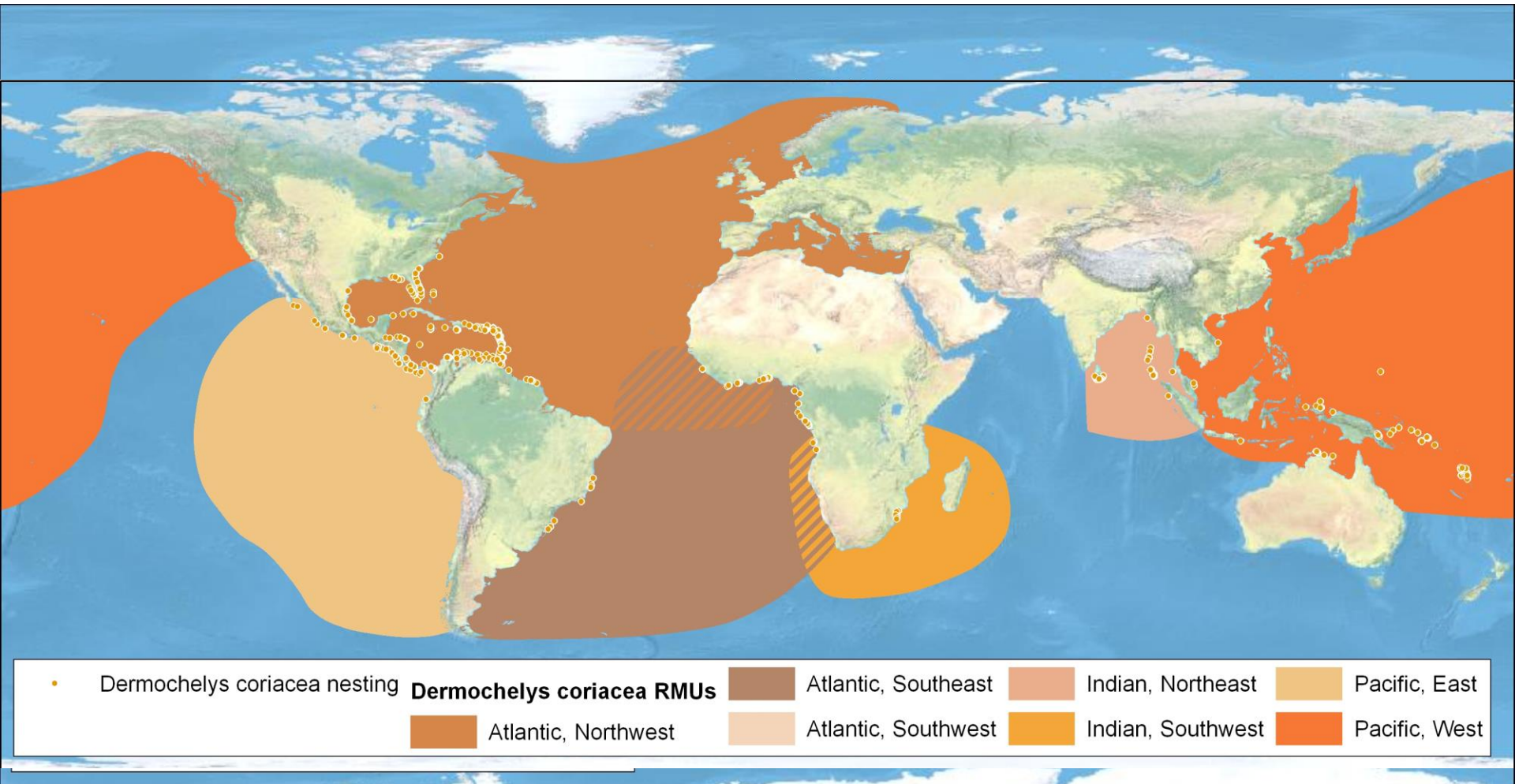
Standard Criteria: all taxa



Leatherbacks: global distribution



How to ensure that Red List assessments reflect regional variation?



GLOBAL distributions
and variation

→ Regional Management Units

IUCN MTSG approach to Red List assessments

IUCN Definition of Subpopulation: *geographically or otherwise distinct groups in the population between which there is little demographic or genetic exchange*

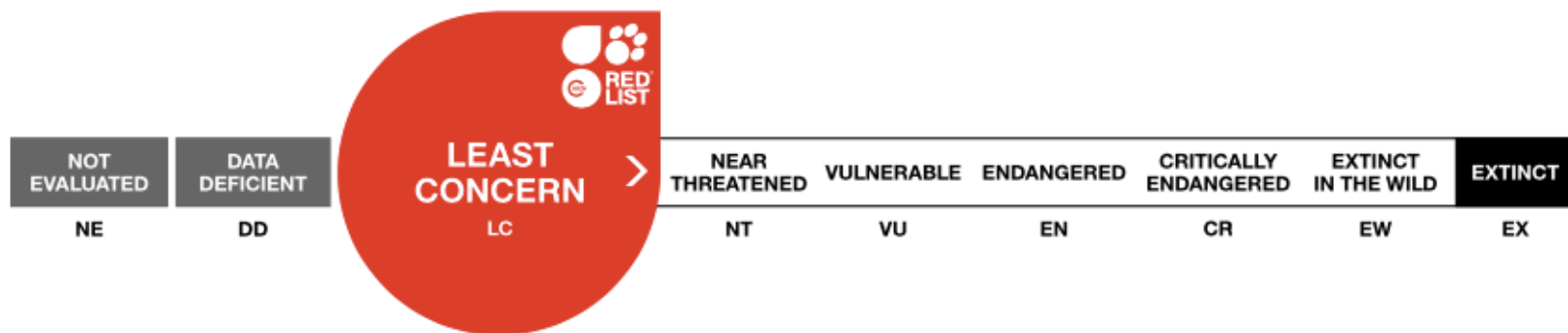
**e.g. Humpback whales, scalloped hammerhead sharks:
global listing and multiple subpopulation listings; based on
lots of different data types**

**Regional Management Units = subpopulations in RL
assessments**

Can be updated by Red List assessors

Background

- **Status assessments: Northwest Atlantic leatherback**
 - Turtle Expert Working Group (2007): abundant, stable or increasing
 - Conservation priorities portfolio (Wallace et al. 2011): Low-risk / Low-threat, ‘healthy’ population
 - 2013 IUCN Red List: Least Concern



How does RED LIST work?

- **GOAL: evaluate risk of imminent global extinction**
- **Red List Criteria: all equally evaluated, all indicate relative risk of extinction**
 - **A: Long-term decline**
 - **B: Geographic range restriction**
 - **C: Small population size**
 - **D: Very small population size**
 - **E: Population Viability Analysis**
- **Approach for Criterion A:**
 - Estimate 3-generation change between a past estimate and a present estimate of abundance
 - Use ~4-5 yr average of annual counts for each
 - Ignores intermediate trends
 - Assumes first counts = abundance 3-generations ago

Previous RL assessment

- **How was it done?**

- Looked at long-term (>10 yr) trends in annual nest abundance data
- Relied heavily on TEWG data, including historical data collected using inconsistent monitoring
- Weighted overall, subpopulation trend by relative abundance of each site
- Historical abundance: ~25,000 nests/year
- Present abundance (through 2010): ~45,000 nests/year
 - 80% increase over ‘3-generations’

UPDATED RL assessment

- **How was it done?**

- Looked at long-term (>10 yr) trends in annual nest abundance data
- Relied heavily on ~~TEWG data~~ data collected using consistent methods
- Observed, not modeled
- Weighted overall, subpopulation trend by relative abundance of each site

Stock	Site	Past Estimate 1*		Recent Estimate	
		Years	Value	Years	Estimate to 2017
Guianas-Trinidad	Suriname (Galibi, Matapica)	1999-2003	9,316	2013-2017	2,419
	French Guiana (Awala Yalimapo)	1986-1990	28,973	2013-2017	424
	French Guiana (Cayenne)	1999-2003	1,304	2013-2017	3,741
	Guyana	1989-1993	173	2013-2017	228
	Trinidad (Matura)	2006-2010	10,203	2013-2017	7,876
	Trinidad (Fishing Pond) #	2009-2012	5,135	2013-2017	
	Trinidad (Grand Riviere) #	2009-2012	10,951	2013-2017	
	Tobago #	2009-2013	410	2013-2017	
	Grenada	2002-2006	339	2013-2017	847
	Venezuela (Cipara)	2000-2004	100	2012-2015	63
	Venezuela (Querepare)	2002-2006	68	2013-2017	117
	Guianas-Trinidad TOTAL			50,476	

Stock	Site	Years	Change through 2017
Guianas-Trinidad	Suriname: Galibi, Matapica	1999-2017	-0.74
	French Guiana: Awala Yalimapo	1986-2017	-0.99
	French Guiana: Cayenne	1999-2017	1.87
	Guyana	1989-2017	0.32
	Trinidad: Matura	2006-2017	-0.23
	Grenada	2003-2017	1.50
	Venezuela: Cipara	2000-2015	-0.37
	Venezuela: Querepare	2002-2017	0.72
Guianas-Trinidad TOTAL			-0.69

Recent *RL* assessment

- **What happened?**
 - It's real: Actual declines in the past decade (see trend assessment results)
 - It's the methods: Difference in how some historical estimates were calculated
 - Key: French Guiana estimates
 - Previous assessment used data going back to 1967, and only had modeled estimates through 2005, had to extrapolate to 2010
 - Current assessment used actual count data from index sites over time, but between 1986 and 2017 only (reliable monitoring effort)
- **What now?**
 - Went through committee review, IUCN Marine Turtle Specialist Group member review
 - Now in review with IUCN; possible official update to Red List (in March?)

What the IUCN Red List is, and what it is not

Also: the role of IUCN Red List Assessments
in sea turtle conservation



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What the RL is and what it is not:

Extinction risk vs conservation needs



Categories provide semi-quantitative indices of extinction risk



Least Concerned

Near Threatened

Vulnerable

Endangered

Critically endangered



HEALTHY < 30%

>30%

>50%

>80%

100%

EXTINCT
in the wild

What the RL is and what it is not:

Extinction risk vs conservation needs



‘Least concern’ is technically correct in that context



Least Concerned

Near Threatened

Vulnerable

Endangered

Critically endangered



HEALTHY < 30%



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>80%

100%

EXTINCT
in the wild

What the RL is and what it is not:

Extinction risk vs conservation needs

BUT: what about taxa that are under threat, are declining, etc., or those whose non-threatened status is entirely conservation dependent?



Least Concerned

Near Threatened

Vulnerable

Endangered

Critically endangered



HEALTHY < 30%

>30%

>50%

>80%

100%

EXTINCT
in the wild

The big misunderstanding

Protect turtles you must!



Turtle conservation

Critically Endangered...
Least Concern!



*Red List is about imminent extinction risk,
NOT conservation needs*



Use the Force... for good?

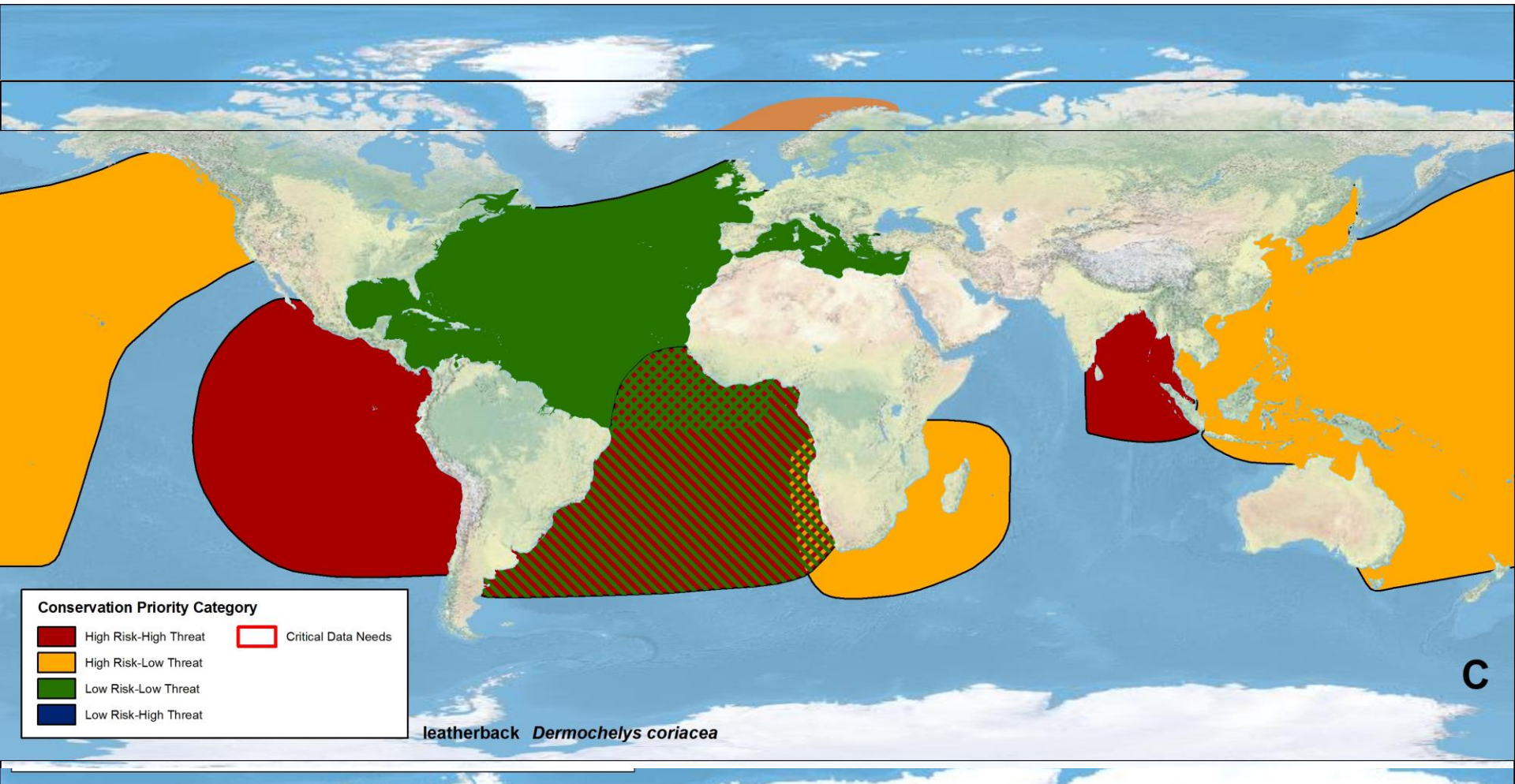
- How should we communicate about Red List?
- Turn away from the Dark Side: What are different approaches to assessing sea turtle status?
- How conservation-dependent are sea turtles, really?



Questions?



foto: Brian Skerry



GLOBAL distributions
and variation

+ RMUs

+ CPP = status
assessments at
'population' levels