

Helene Marsh

The challenge of conserving dugongs



Photo: Mandy Etpison

Why are dugongs challenging to conserve ?

- Powerful political animals
- Long-lived slow breeding
- Accessible to human impact
- Multiple threats - taste very good!
- Mostly occur in small populations in developing countries
- Uneven status and prospects



Donna Kwan photo

Powerful political animals



The battle for Okinawa's dugongs:
the role of the US Historic
Preservation Act

Dugong vs Rumsfeld

Dugong wins 👍

Dugong vs Gates

Dugong wins 👍

Can the
dugong win
against a third
US Secretary
of Defense?

Google Alerts 2 August 2012

Lawsuit Launched Against Multi-billion-dollar U.S. Subsidy of Fossil Fuel Projects in Australia's Great Barrier Reef



SAN FRANCISCO— Three conservation groups initiated legal challenge today to the U.S. Export-Import Bank's nearly \$3 billion in financing for two massive fossil-fuel facilities in Australia's Great Barrier Reef. Construction and operation of the liquefied natural gas (LNG) facilities will threaten **dugongs**

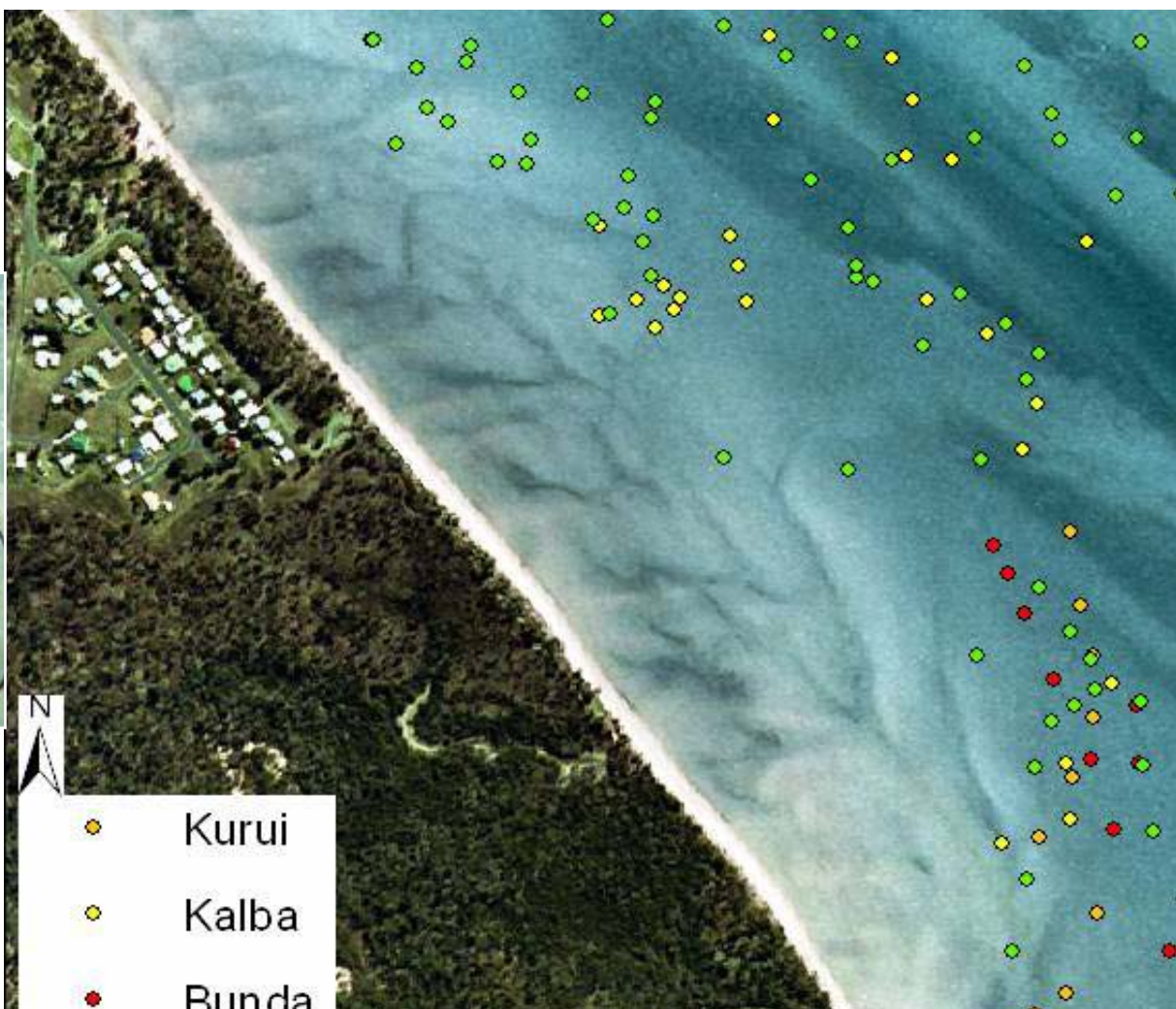
.... and numerous other protected marine species within the Great

Aquatic plant eater



Habitat very accessible to humans

Locations of dugongs
collected
in Australia



Not wilderness animals



**Lifespan similar to humans
> 70 years**



First calf at 7-17 years



Mandy Etpison photograph

Low sustainable human-caused mortality

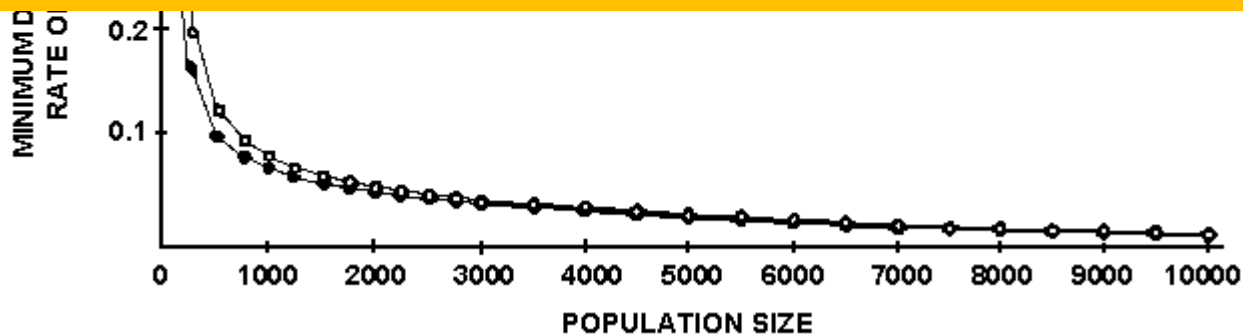
Survival of adults must be > 95% p.a. to maintain a dugong population

Dugong population size	Sustainable human-caused mortality per year*
100	0
1000	<13
10000	<130

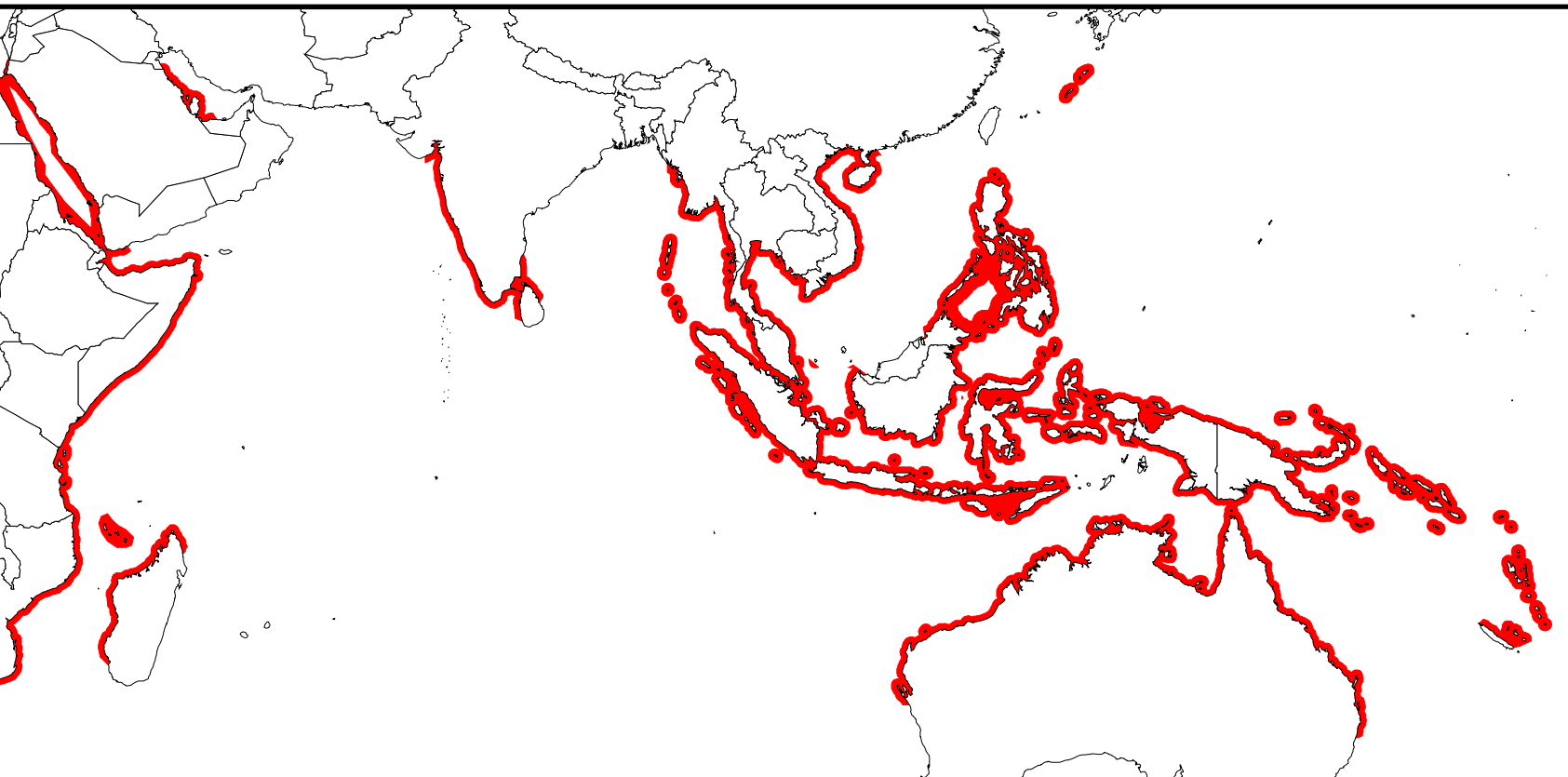
* based on RFR = 0.05, survival = 0.95, and population = 100

Impossible to detect decline in
small populations unless
catastrophic

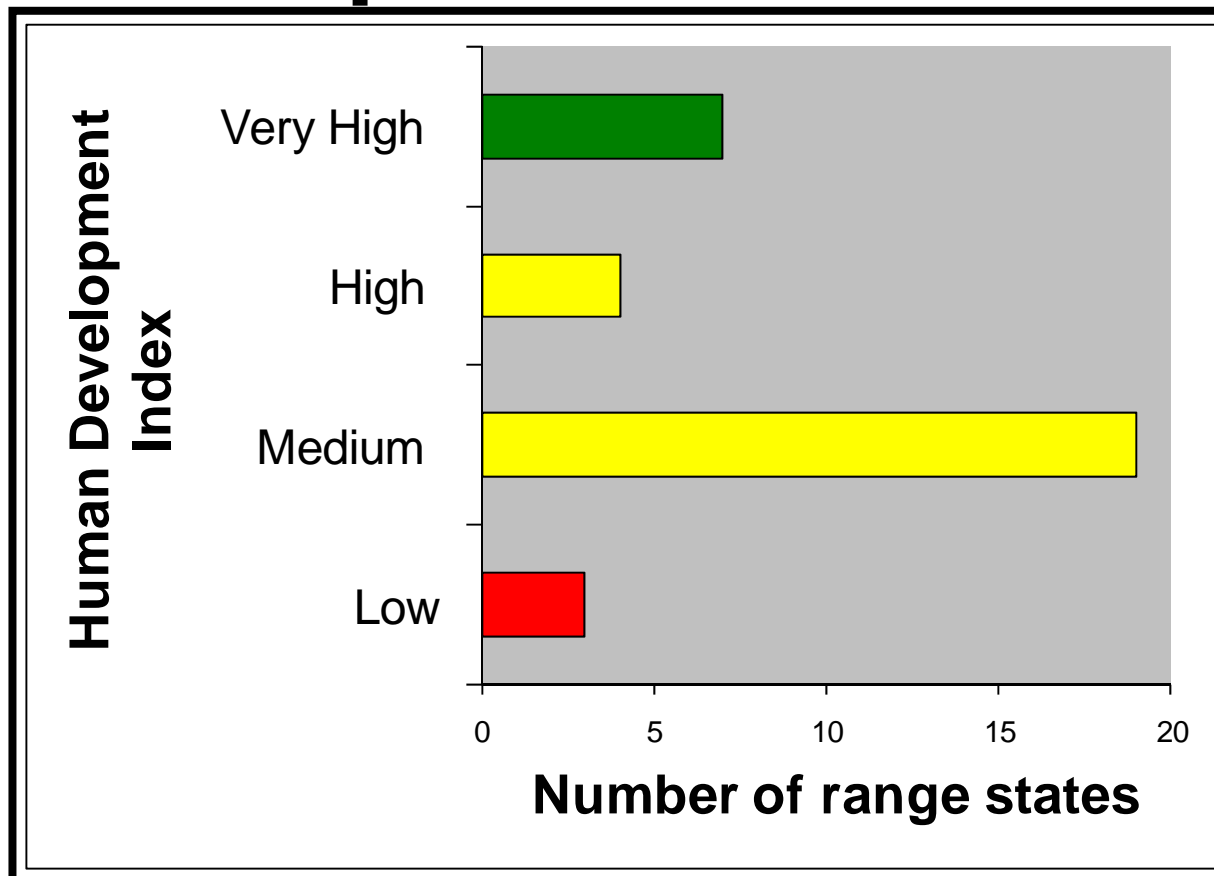
Recovery difficult to
detect too



Vast range



Mostly occur in developing tropical countries



Multiple threats: urbanized areas



Rachel Groom photo



Hamansu Das photo



multiple threats: developing countries and rural and remote areas



Bycatch artisanal fisheries

The challenges of dugong bycatch

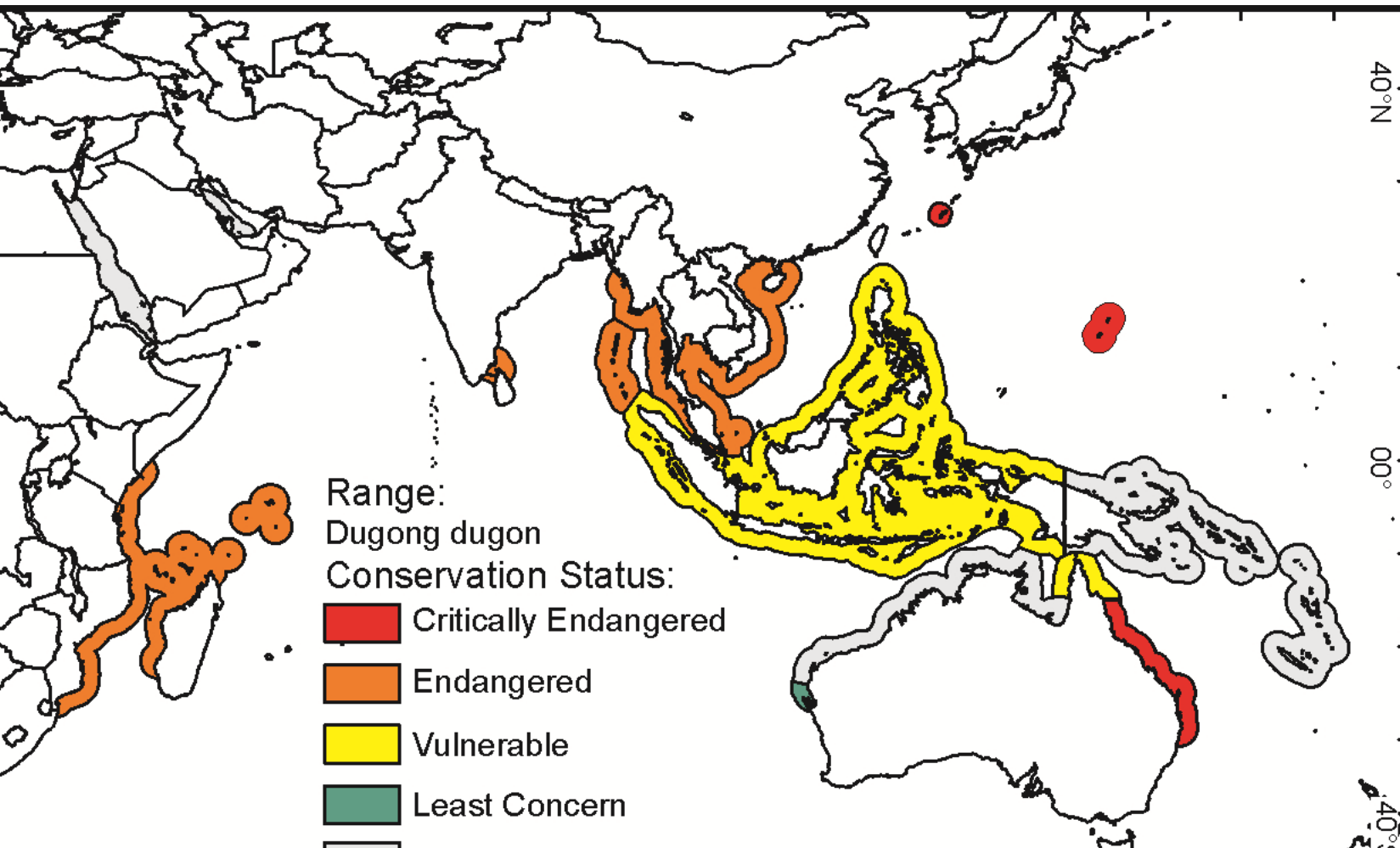
- Small populations of dugongs
- Low levels of bycatch serious impact
- Fisheries managers dismiss as unimportant
- Rare event for individual fisher - hard to convince of problem
- Linked to trade in more lucrative products- worth taking the risk of



Catching a dugong : windfall for impoverished artisanal fishers



Uneven conservation status



neven conservation prospects?

Dugong Population Size	Human Development Index			
	Low	Med-ium	High	Very High
10 x thousands				1
Thousands		4	2	3
Hundreds	3	6	1	
Tens		9	1	4

Conserving dugongs needs to be more than banning hunting



Top down legal protection irrelevant for starving people

Poverished
fishers

Nets ?
from
overseas
aid

Catch
dugongs

Sell meat, tusks etc to traders
along with shark fins, fish bladders
etc



Questions?

