

Sea Turtles and Tree Trunks

By Grahame Webb

Having tried amidst a highly bumpy road to transgress the scientific and political gulf between crocodiles and sea turtles, two groups of organisms that in reality share many biological characteristics, I have reached a single conclusion:

Wouldn't it be remarkable to read the findings of a group of totally objective, unbiased, eminent scientists (zoologists, herpetologists, ecologists, wildlife management specialists) who, using nothing but the literature, reviewed the current global status of all species of sea turtles and provided some sound independent advice on how to proceed in the future.

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It seems a simple request. Yet strangely, it is apparently beyond the capacity of mankind to achieve. There will be no objective, pragmatic assessment that can truly be considered unbiased. There will be no council of highly respected wise people that can pass credible judgement on the "big picture" with sea turtles. There will be no definitive view that all nations can rely on. Perhaps the same situation exists for whales, elephants, crocodiles, seals, tuna, sharks and a multitude of other species that are flagships for international conservation debate. Perhaps any such council would represent a significant political threat to some countries. And if such a council were established, with the most respected scientists the globe has to offer, how would they and their reputations be protected? Would they need black hoods, anonymous identities and security around their laboratories, offices and houses?

Feelings run high with conservation.

It could be argued that no independent council is needed with sea turtles because there are many scientists skilled with them. Indeed, a remarkable group of scientists have concentrated their life's work on sea turtles and they deserve credit for their efforts. Sea turtles are even more logistically difficult and expensive to study than crocodiles, and I for one greatly admire their work and tenacious-

ness - it matches the tenaciousness of sea turtles who have survived amidst an often hostile environment. But when argument develops between scientists, to

whom do we turn for resolution? In reality, the politicians and new class of biopoliticians.

I think all scientists would agree that the science of sea turtles is very incomplete. There remains vast and significant gaps in the global knowledge of fundamental issues such as population and harvest dynamics. There are vast sources of error in theoretical models and many of predictions generated from them.

For example it is unknown whether the wild population that supported and sustained the historical Cuban harvest of 5000 Hawksbill Turtles per year (currently 500 per year) was less than 100,000 non-hatchlings or millions of non-hatchlings. It is unclear whether stability of Hawksbill nesting surveys

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in Australia indicates the population is at carrying capacity or just hanging on. Whether the cup is half full or half empty? It is unclear whether 1% of Hawksbill hatchlings survive their first year or 5%, yet this represents a 500% increase in annual recruitment rate. None of these questions can be answered by scientific data available at present. So we must rely on the opinions and informed guesses of scientists, and these can be wildly in error.

Yet in some cases these opinions are expressed with an air of credibility and absolute certainty. The political machinery is driven by such assessments, in ignorance of their limitations. There are clearly many cautious scientists working on sea turtles who steer well clear of such shaky commitments, but few seem to object loudly when the gap between science and unsubstantiated speculation widens. And on the few occasions I'm aware of that people have spoken out, their efforts have not been welcomed. Destroy the messenger rather than heed the message.

Personally, science fascinates and humbles me. I've always considered myself a student of science rather than a practitioner. But for me the tree of knowledge is ^{one} in which many researchers tinker with the leaves. Small groups of highly specialized people accepting past ideas without question and arguing about fine detail. Sometimes it results in great benefits to humanity. However, the real breakthroughs in science come from moving tree trunks around. They come rarely and often from a hostile initial reception. In hindsight, they are often simple insights that had been lying before everyone's eyes ... but we simply could not see. When they do come, lifetimes of work at the level of leaves may

simply vanish, like an Autumn shedding. It is perhaps not surprising that new insights, at the tree trunk level, are not always welcomed with open arms or clear minds.

I suspect with sea turtles and conservation that time will eventually show that the tree trunks are in the wrong position. That regardless of the political sensitivities of the day, that the failure to even consider the role sustainable use can play, let alone embrace the concept, will be shown to be constraining rather than enhancing sea turtle conservation in today's complex world. That programs such as the Cuban Hawksbill harvest program will eventually be seen as sources of new and vital information on sea turtles that can assist conservation efforts glob-

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ally - rather than something that is morally wrong and should be stamped out at all cost.

This is clearly not a view adhered to by perhaps the majority of sea turtle scientists today. But it can be argued that the beauty of science is exactly this. That people can hold totally opposing interpretations of data amidst an air of scientific respect. In this case, polarization and political opportunism are widening the gulf between scientists fundamentally interested in the same goal. Ensuring that sea turtles are conserved and used sustainably.

It would be nice if some eminent council of scientists, with no interests whatsoever in the outcome, could evaluate this issue and decide where scientific justification begins and ends. Perhaps whether the current position of tree trunks is justified. This way, at least, the politics inflaming the issue could ~~at least~~ be seen for what ~~it is~~ ^{they are}. Unfortunately, it is unlikely to happen. □