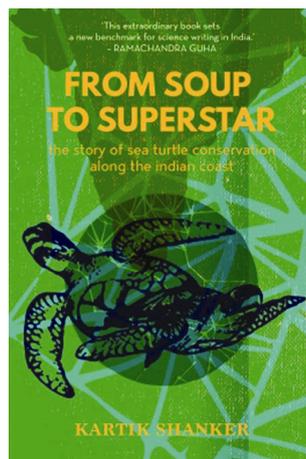


1. Noltie, H. J., *Robert Wight and the Botanical Drawings of Rungiah & Govindoo*, Royal Botanic Garden, Edinburgh, Scotland, 2007, Three Volumes, I – 208 pages, II – 208 pages, III – 88 pages.
2. Raman, A., *Curr. Sci.*, 2015, **109**, 1347–1352.
3. Raman, A., *Curr. Sci.*, 2014, **106**, 1594–1600.
4. Anonymous, *Br. Med. J.*, 1895, **1**(1797), 1304.
5. Das, P., *Environ. Hist. (Cambr.)*, 2005, **11**, 55–82.
6. Brandis, D., *Trans. R. Scot. Arbor. Soc.*, 1888, **12**, 87–93.
7. Cleghorn, H. F. C., *The Forests and Gardens of South India*, W. H. Allen, London, 1861, p. 412.
8. Anonymous, *Asiat. J. Month. Reg. Brit. For. Ind. Chin. Australas.*, 1836, **XX**(N.S.), 86.
9. Raman, R. and Raman, A., *Natl. Med. J. India*, 2016, **29**, 98–102.
10. Raman, A., *Curr. Sci.*, 2012, **102**, 1717–1720.
11. Buchanan, F., *A Journey from Madras Through the Countries of Mysore, Canara, and Malabar: Performed Under the Orders of the Most Noble the Marquis Wellesley, Governor General of India, for the Express Purpose of Investigating the State of Agriculture, Arts, and Commerce; the Religion, Manners, and Customs; the History Natural and Civil, and Antiquities, in the Dominions of the Rajah of Mysore, and the Countries Acquired by the Honourable East India Company*, Three volumes, T. Cadell & W. Davies; Black, Parry, & Kingsbury, Bulmer & Co., London, 1807, vol. 1, 424 pages, vol. 2, 556 pages, vol. 3, 556 pages.
12. Cleghorn, C. F. C., Royle, F., Smith, R. B. and Strachey, R., Report of the Committee appointed by the British Association to consider the probable effects in an economical and physical point of view of the destruction of tropical forests. In the Report of the 21st Meeting of the British Association for the Advancement of Science held at Ipswich, 1851, John Murray, London, 1852, pp. 78–102.
13. Marr, J. R., *Dialogues Across Disciplines from the NIAS Archives* (eds Narasimha, R. and Ahuja, D.), National Institute of Advanced Studies, Bangalore, 2012, vol. I, pp. 250–274.
14. Long, F. L. and Clements, F. E., *Am. J. Bot.*, 1934, **21**, 7–17.

ANANTANARAYANAN RAMAN

Charles Sturt University, and
Graham Centre for Agricultural Innovation,
P O Box 883,
Orange, NSW 2800, Australia
e-mail: araman@csu.edu.au



From Soup to Superstar: The story of sea turtle conservation along the Indian coast. Kartik Shanker. Litmus, An Imprint of HarperCollins Publishers, A-75, Sector 57, Noida 201 301, UP. 2015. 368 pages. Price: Rs 550.

‘Can science inform conservation?’ asked Kartik Shanker. Seven first year PhD students (year 2007) at Centre of Ecological Sciences (CES) were dumbfounded. This question probably never crossed the minds of these naive aspiring ecologists, some of whom were infatuated with their study system and zealous about its conservation. I was one of the bemused students and I have been pondering this question ever since. Is mere common sense sufficient to craft long term conservation strategies? Or is there relevant scientific knowledge to envision viable conservation programmes, but we are limited in our creativity to harness the full power of this knowledge?

In the prologue to his book on the story of sea turtle conservation in India, Kartik writes ‘but the domains of biology and conservation intersect more significantly in the sea turtle world than perhaps for any other animal group’. I wondered in what way these two domains intersected and what Kartik truly thought about the role of science in conservation. The title of the book, *From Soup to Superstar* thoroughly whetted my appetite for a story about food and fame.

I actually started reading the book from the middle, because I could not resist the beautiful colour photographs of sea turtles and the emotive black and white photographs of turtle biologists and conservationists. The charismatic physiognomy of the turtles with large innocent eyes set in benign rounded

heads instantly trapped my pre-existing sensory bias. There is potential for stardom for sure. But far more powerful gastronomical biases and survival instincts of people can easily eclipse the visual charm and land the turtle in hot soup. Is the turtle egg hatchery of Students’ Sea Turtle Conservation Network (SSTCN) still an unpretentious thatched hut? Decades of monitoring and conservation efforts by Rom Whitaker, Satish Bhaskar and others – were it in vain? I could hardly wait to read the book from the beginning and see the story unravel.

Kartik lures us into the world of the olive ridleys by vividly describing the hatching of a clutch of eggs and the frenzied scramble of the juveniles down the sandy slope into the sea. He provides a brief history of turtle research in India and then introduces us to the two most riveting personalities in the drama of sea turtle research and conservation – Satish Bhasker and Rom Whitaker. Kartik engagingly narrates many incredible and legendary feats of Satish on his survey and monitoring trips and his remarkable discoveries. Can you believe that anyone would be willing spend five months in isolation on a remote island to document the nesting of green turtles? Moreover, there was no guarantee that a boat would arrive for the pick up before the rations ran out! Kartik also interlaces the prose with excerpts from letters that Satish wrote from remote places to his family and friends. One of them was actually a ‘message in a bottle’ to his wife, set afloat in the sea and found by a fisherman in Sri Lanka! Satish’s letters are not merely fascinating in content; they are utterly beautiful in language and style.

Rom Whitaker started a conservation programme in Chennai in 1973 that relocated turtle eggs to a hatchery. He explored the islands of Andaman and Nicobar for initiating survey and monitoring programmes. Rom took up Indian citizenship so that he would be permitted to work on these islands. A true patriot – a citizen by choice and not by default of birth! That or he is just extremely passionate about conservation. Many other players such as Robert Bustard, C. S. Kar and E. G. Silas in the early stages of sea turtle conservation and biology are introduced to us. But Satish and Rom are omnipresent in this narrative. This book is a homage to the extraordinary efforts of these enigmatic outliers and justifiably dedicated to them.

Sea turtles have been harvested for meat, shell and eggs for centuries. Even in the early seventies, meat, shell and oil were exported to several western countries. However, in 1977 all the species of sea turtles in India were listed as Schedule I species of the Wildlife (Protection) Act. The author has painstakingly researched a mind boggling volume of literature to understand how this transition came about and what has transpired since then. Research includes accounts of natural history observations by British naval officers of colonial India, marine export records of sea turtles, master's and Ph D theses of students, sea food export journals, scientific papers, newspaper reports, newsletters and even personal interviews with the Director of Wildlife Preservation during Indira Gandhi's tenure. This exhaustive research and synthesis took five years. But mercifully the book is not a heavy and dry sequence of facts and events. It is informative, objective, analytical, thought provoking and often humorous. Here are a couple of lines that tickled my funny bone: 'one day, while surveying the beach in Gahirmatha, Bivash met two women sunbathing on the beach. That, normally a stroke of fortune by itself for an isolated field biologist, turned out not to be the only lucky part.'

The book was an emotional roller coaster even though the tone is lively (at times mildly sarcastic) without being dramatic. The book appealed to my emotions probably because the story of sea turtle conservation is inherently dramatic. The brief introduction to a turtle's life was endearing. The description of how turtles were butchered for consumption, part by part, slowly in the market while still alive was traumatizing. The protest by the humane society of England and subsequent act against cruelty to animals by the Ceylon government restored some hope for the capacity for compassion in the *Homo sapiens*.

What I enjoyed the most about the book were the stories of SSTCN in Chennai, Prakruthi Nature Club in Gujarat and Theeram Prakruthi Samrakshana

Samiti in Kerala. I was pleasantly surprised by the persistence of SSTCN as a non-hierarchical, leaderless group of volunteers for 28 years and in my opinion a phenomenal success in outreach and education about sea turtle conservation and the spirit of volunteerism in general. Kartik is brutally honest about SSTCN's achievement when he writes, 'The sum total of this effort in terms of direct conservation action is the release of a few thousand hatchlings each year. Given the low survival rate of sea turtles from hatchling to adulthood, this represents just over hundred adults in a couple of decades. Considering the simultaneous threats to adults from fisheries and other sources, it does not seem likely that the hatchery programme does that much to conserve ridleys on the coast of Chennai.'

The story of Dinesh Goswami a daily wage worker at a cement factory and his pro-bono work for sea turtle conservation through his organization Prakruthi Nature Club is enlightening and inspiring. I was impressed by Dinesh's sagacity, sensitivity and compassion in dealing with 'offenders' of the WPA who were villagers harvesting turtle eggs. Instead of imprisonment he appealed to the judge for a 'sentence' of two years of service that comprised walking along the coast and spreading awareness about sea turtle conservation. I believe this strategy prevented the sea turtle from turning into a 'gunboat' of conservation in this village.

The story about a group of young fisher men from Kerala and their contribution towards turtle conservation is spectacular. I think very valuable lessons may be learnt from a closer perusal of this case study. I am even considering visiting them in Kerala to learn more. I think herein lies the strength of this book. The book is more than just thought provoking. It has the potential to be 'action provoking' in spite of being disturbingly honest about the futility of some of the efforts to conserve sea turtles. The book, however, is not pessimistic. After marshalling case studies of various small

groups across the coasts of India and their efforts at sea turtle conservation, the author does discuss the 'conservation conundrum' which is to choose the 'right' model.

Sustainable use of natural resources to conserve wildlife habitat and wildlife is extremely difficult to implement especially when social injustice, stark economic disparity and unequal opportunities for basic needs of food, shelter, water, health care, hygiene and education prevail. The complexity of conservation is enhanced by the philosophical differences between the various stakeholders. The 'means to the end' are vastly different and the efforts of one group are sometimes counter-productive and negate the positive outcome of others. Therefore, nature conservationists and wildlife enthusiasts, especially those in populous countries will find this book very relevant.

The most provocative and philosophic statement in this book to me was 'all players (the state, conservationists, corporations, academics, fishers), intentionally or institutionally continue to pursue agendas and strategies that are geared to help mainly themselves, regardless of whether it helps sea turtles in the long run or not'? While evolutionary biologists (frowning thoughtfully about the mystery of altruism) will replace the question mark at the end with a full stop, ardent conservationists may be seriously offended. Conservationists would certainly benefit if they read this book with an open mind. If you are merely curious to know what Kartik really thinks about the role of science in conservation or in what way Bivash the isolated field biologist got lucky with the two women sunbathers, I encourage you to read this book.

KARPAGAM CHELLIAH

*Centre for Ecological Sciences,
Indian Institute of Science,
Bengaluru 560 012, India
e-mail: karpakazi@gmail.com*