

Recent publications and conference presentations

(related to the first article in this issue)

Constructing confidence: Rational skepticism and systematic enquiry in local ecological knowledge research

Anthony Davis and Kenneth Ruddle

Source: *Ecological Applications* (2010) 20(3):880–894.

Key attributes of the social research contributions on indigenous ecological knowledge (IEK), local ecological knowledge (LEK), and traditional ecological knowledge (TEK) are analyzed using the most frequently cited literature generated by the “ISI Web of Knowledge” and “Google Scholar” search engines. They are further exemplified by an examination of two contrasting approaches to the analysis of IEK/LEK/TEK. The results show that IEK/LEK/TEK is treated predominantly via definitions, and few articles examine concepts, research design, methods, or operational attributes. Consequently, there is no consensus on the content of IEK/LEK/TEK, the primary components of which await examination via focused research. These are fundamental issues because IEK/LEK/TEK misrepresented by social research would probably deepen disempowerment of those it purports to champion. Research topics are suggested to address these issues.

What is ‘ecological’ in local ecological knowledge? Lessons from Canada and Vietnam.

Kenneth Ruddle and Anthony Davis

Source: *Society and Natural Resources* (2011) 24(9)

Case studies from Canada and Vietnam demonstrate both the importance and content limitations of local ecological knowledge (LEK) acquired during collaborative research between local fishers and scientists. The Canadian research disproved fishers’ contentions that white hake (*Urophycis tenuis*) was the main predator on juvenile lobster (*Homarus americanus*). In the Vietnam case, the LEK of 400 fishers was used to test a hypothesis about monsoon seasonality and the availability of fish for fermentation. Fishers’ LEK was important in both confirming the basis of the hypothesis and highlighting anomalies. The cases demonstrate that although important, harvesters’ local experiences and observations may not characterize accurately such ecosystem processes as predator-prey dynamics or seasonality. It is unrealistic to expect fishers’ LEK and understanding of ecology to embody such attributes, since stomach contents of commercially important target species are rarely examined, and fishers interact with ecosystems primarily to earn a living.

Incorporating local knowledge into education for the management of nearshore capture fisheries

Kenneth Ruddle and Anthony Davis

Source: Paper presented at the Asian Institute of Technology, Bangkok, Symposium on Aquaculture and Fisheries Education, December 2009 (Symposium proceedings in preparation)

Alternative models that generally include “adaptive management” and “the Ecosystem approach” have been advocated to replace “standard” Western models and approaches for managing tropical nearshore fisheries. However, they remain generally unfamiliar. As a result, “local ecological knowledge” or LEK (also known as “traditional” [TEK] or “indigenous ecological knowledge” [IEK]) is widely promoted as a source of data on these alternatives, in order that the best of non-Western, pre-existing models and Western approaches could be blended to provide acceptable and sustainable solutions. This would require tertiary level training on LEK. Before that occurs, however, the limitations of LEK research must be recognized. A recently completed study by Davis and Ruddle demonstrated that the basic problems characterizing social research on LEK are the use of unsophisticated theories or concepts with often undocumented and nonsystematic research designs and methodologies, which, in turn, give rise to unwarranted or indefensible outcomes. Social science research on LEK has much to contribute to framing and understanding an alternative approach to resource management. However, given the trends evident in the most cited literature, it is far from obvious that current social research is following a path to fulfill that important mandate. Supporting documentation is, at best, based on unsystematic study, thus much is unrepresentative and unreliable, producing data and outcomes that do not permit comparisons and generalizations. Consequently, it is ill-suited

for sustainable resource management policy recommendations. Standards of accountability and transparency need to be raised, beginning with the elementary requirement that researchers provide descriptions of research designs and methodologies sufficient to enable assessment of the reliability and representativeness of findings, and to facilitate comparison, generalization and evidence-based conclusions. Only then will LEK be suitable for inclusion in Fisheries Social Science instruction at any level.

Managing coastal and inland waters: Pre-existing aquatic management systems in Southeast Asia

Kenneth Ruddle and Arif Satria (Eds.)

This book examines pre-existing management systems in fishing communities in Indonesia, Laos, the Philippines, Thailand and Vietnam. Besides the erroneous assumption that tropical fisheries are 'open access', the cases demonstrate that pre-existing systems (1) are concerned with the community of fishers and ensuring community harmony and continuity; (2) involve flexible, multiple and overlapping rights adapted to changing needs and circumstances; (3) that fisheries are just one component of a community resource assemblage and depend on both the good management of linked upstream ecosystems and risk management to ensure balanced nutritional resources of the community; and (4) pre-existing systems are greatly affected by a constellation of interacting external pressures.

(More available on <http://springer.com/978-90-481-9554-1>)

UNESCO and Fiji Government commit to marine education and traditional knowledge at International Pacific Conference

Source: Indigenous Peoples Issues & Resources website (<http://indigenouspeoplesissues.com/>)

Strengthening the role of marine education and traditional knowledge is crucial to the future of sustainable development in the Pacific region, according to the 2010 International Pacific Marine Education Network (IPMEN) conference. Held at Outrigger on the Lagoon, Viti Levu, Fiji Islands, the three-day conference concluded with several key outcomes, including commitments from UNESCO and the Fiji Ministry of Education to undertake immediate initiatives to make this a reality.

"Pacific Islanders, who are custodians of the rich but threatened marine biodiversity in the region, have for centuries applied customary management practices in the traditional governance of their fishing grounds," noted associate professor Joeli Veitayaki, coordinator of the Marine Studies Division at the University of the South Pacific (USP). "While remnants of the system remain today, the people have witnessed increasing threats as they have to share their resources with other people with whom they must now work to ensure its sustainability."

Hosted by the USP Marine Studies Division and Institute of Applied Science, the conference brought together 87 participants from a dozen countries to address ways marine education can help Pacific communities prepare for the new millennium. The conference topics included climate change impacts on Pacific children, incorporating traditional and place-based knowledge to build healthy coastal communities, the changing role of women in fisheries, and gaps in existing Pacific marine education.

(More available on <http://www.ipmen.net>)

© Copyright Secretariat of the Pacific Community, 2010

All rights for commercial / for profit reproduction or translation, in any form, reserved. SPC authorises the partial reproduction or translation of this material for scientific, educational or research purposes, provided that SPC and the source document are properly acknowledged. Permission to reproduce the document and/or translate in whole, in any form, whether for commercial / for profit or non-profit purposes, must be requested in writing. Original SPC artwork may not be altered or separately published without permission. The views expressed in this Bulletin are those of the authors and are not necessarily shared by the Secretariat of the Pacific Community.

Original text: English

Secretariat of the Pacific Community, Marine Resources Division, Information Section
BP D5, 98848 Noumea Cedex, New Caledonia
Telephone: +687 262000; Fax: +687 263818; cfpinfo@spc.int; <http://www.spc.int/coastfish>