

THE PACIFIC CIRCLE



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PACIFIC CIRCLE NEWS

It is with sadness that we announce the death of Craig B. Waff, a leading historian of Astronomy and long-time Pacific Circle member. Craig suffered a heart attack only two days after successfully observing the June 5, 2012, transit of Venus from the solar tower at Mt. Wilson Observatory. He had a full career as a teacher, editor, author, and historian. Craig earned his PhD from Johns Hopkins and that was only the beginning of an engaging professional life of travel, conferences, and publications, covering the Notre Dame biennial workshops in the history of Astronomy to being a member of the Antique Telescope Society to contributing to *The Greatest Games of 19th-Century Baseball*. From 2004 until the time of his death, Craig was the Senior Historian at the Air Force Research Laboratory at Wright-Patterson Air Force Base in Dayton, Ohio, with the exception of a brief stint at Andrews Air Force Base, where he was the historian of for the 89th Airlift Wing. He will be missed by family and colleagues. An obituary written by Trudy E. Bell, his former wife, co-parent and colleague, is available at the *Society for the History of Astronomy* electronic news, volume 4, number 3, July 2012, pages 18-21, and one written by William Sheehan for the American Astronomical Society can be accessed at <http://aas.org/obituaries/craig-b-waff-1946-2012>. May his memory be a blessing.

Recent and Forthcoming Publications, Honors & Scholarly Activities by Circle Members

Congratulations to David Branagan, the recipient of the inaugural Tom Vallance Medal for services to researching and documenting the history of the earth sciences in Australia. Prof. Branagan received the honor at the 2012 International Geological Congress, held in Brisbane. David also recently published “The Open Cut Era (Late 1940s – Mid 1960s) in the Western Coalfield of New South Wales: Including Some Autobiographical Memories,” in *The Journal of Australasian Mining History* 10 (2012), pp. 12-25.

And to Philip K. Wilson, for the publication of *Chocolate as Medicine*, a volume in the “A Quest over the Centuries Series” published by the Royal Society of Chemistry. Philip co-edited the volume with W. Jeffrey Hurst.



HSS NEWS

The 2013 Annual meeting of the History of Science Society will celebrate the 100th anniversary of *Isis* and is scheduled for November 21-24, in Boston. Additional information is available at <http://www.hssonline.org>.

FUTURE MEETINGS, CONFERENCES, and CALLS FOR PAPERS

15-18 May 2013. “Maritime Borderlands and Cultural Landscapes,” the Annual Conference of the North American Society for Oceanic History, to be held at Thunder Bay National Maritime Sanctuary, Alpena, Michigan. For information, please contact Conference Chair Cathy Green at cathy.green@noaa.gov.

2-4 June 2013. Annual Conference of the Canadian Society for the History and Philosophy of Science (CSHPS), to be held as part of the Congress of the Humanities and Social Sciences (CFHSS) at the University of Victoria, Canada. This is a bilingual meeting and papers can be given in English or French. For additional information, visit <http://www.fedcan.ca/> and/or contact Prof. Elizabeth Neswald at eneswald@brocku.ca.

16-19 June 2013. 94th Annual Meeting of the AAAS, Pacific Division, to be held in Las Vegas, Nevada. Please contact Dr. Roger Christianson at rchristi@sou.edu.

19-23 June 2013. 12th IHPST Conference, to be held at the University of Pittsburgh, USA. This meeting is being held with the support of the University of Pittsburgh’s Centre for Philosophy of Science, the Interdivisional Teaching Commission of the International Union for History and Philosophy of Science, and Springer Publishers. Information at <http://www.education.pitt.edu/ihpst2013/>.

26-29 June 2013. 4th Biennial Conference of the Society for Philosophy of Science in Practice, to be held at the University of Toronto, Canada. This meeting provides a broad forum for scholars committed to making detailed, systematic and interdisciplinary studies of scientific practices. Questions? Andrea Woody at awoody@u.washington.edu.

4-6 July 2013. International Conference of The East-Asian Association for Science Education (EASE), to be held in Hong Kong, China. The conference aims to build an international platform for exchange among scientists and science educators. For information, please visit <http://ses.web.ied.edu.hk/ease.2013/>.

7-12 July 2013. ISHPSSB Meeting in Montpellier, France. Themes include, but are not limited to: Anthropology, Cellular and Molecular Biology: Historical and Philosophical Approaches, Ethical and Bioethical Issues, Evolutionary Biology, Gender Studies, History of Genetics, Public Health Issues, and Teaching Biology. Information available at ishpssb2013@sciencesconf.org and <http://www.ishpssb2013.org>.

8-12 July 2013. 12th Pacific Science Inter-Congress, to be held at the Laucala Campus, University of the South Pacific, Suva, Fiji. The theme is “Human Security in the Pacific.” Sessions will include, but not be limited to, biodiversity, governance, food and health, ocean development, climate change, sustainable development, and trade and economic integration. For additional information, please contact the Pacific Science Association at www.pacificscience.org.

22-28 July 2013. 24th International Congress of History of Science, Technology and Medicine, to be held in Manchester, UK. For information about the meeting and how to submit a paper, please visit: <http://ichstm2013.com/maillinglist/>. For information and registration, please visit <http://ichstm2013.com/registration>.

28-31 August 2013. 4th Conference of the European Philosophy of Science Association, to be held at the University of Helsinki, Finland. The conference has eight sections: General Philosophy of Science; Philosophy of the Physical Sciences; Philosophy of the Life Sciences; Philosophy of the Cognitive Sciences; Philosophy of the Social Sciences; Philosophy of Technology and Applied Research; Formal Philosophy of Science and Historical, Social, and Cultural Studies in Philosophy of Science. Questions? Please visit <http://www.helsinki.fi/epsa13/>.

9-13 September 2013. 8th International Congress on Traditional Asian Medicine, to be held at the Changwon Exhibition Convention Centre, Changwon, Gyeongsangnamdo, South Korea. The theme for this Congress is “Beyond Integration: Reflections on Asian Medicines in the 21st Century.” Sub-themes include canonization and textual authority, the mainstreaming of Asian medicines, spirits, efficacy and effectiveness, networks and systems, and Asian medicines in global health and development. Details about the meeting are available at www.iastam.org.

9-11 January 2014. 5th International Conference on The History of Medicine in Southeast Asia (HOMSEA 2014), to be hosted by the Department of History, Ateneo de Manila University, Manila, the Philippines. Papers on the subject of the history of medicine and health in the region will be considered, with particular interest in those considering the history of medical education, indigenous medical traditions, medical biographies, the history of military medicine, organizing the medical profession, women’s health and family planning, medicine and social

development, travel, contact, exchange, and the circulation of medicine, colonial and national medicine, historical medical texts, medicine and religious practices, Chinese and Indian medicine, and early medical professionals. For information about the meeting and submitting paper proposals, please contact Laurence Monnais at laurence.monnais-roussetot@umontreal.ca.

17-20 June 2014. 95th Annual Meeting of the Pacific Division of the AAAS, to be held at the University of California, Riverside campus. Submissions should include the following: Organizer's name and full contact information; the same for any co-organizers; note whether a workshop or symposium; number of half-day sessions requested and any Pacific Division sections or affiliated societies; title of program; brief description of program; and list of speakers, facilities, special equipment relevant to proposed session. Questions? Please contact Dr. Roger Christianson at rchristi@sou.edu.

BOOK, JOURNAL, EXHIBITION and RESEARCH NEWS

A colorful, 3D poster of the Great Artesian Basin (Australia) can be viewed and ordered at <http://www.gabcc.org.au/public/content/ViewCategory.aspx?id=106>.

The History Department at King's College London will be offering up to five full MA studentships for students taking on a full-time basis the MA in Science, Technology and Medicine. The awards will be based on academic achievement and promise. They are available to UK, EU and overseas students. They cover a full fee waiver and a maintenance bursary. The Department will also offer a single four-year Hans Rausing MA + PhD studentship for an outstanding student intending to progress from the MA to undertake the PhD in the History of Science and/or Technology. Please apply with a brief c.v. focused on tertiary educational achievement and a support statement of approximately 300 words outlining the reasons for pursuing the degree. Applications must be received no later than May 15, 2013. For additional information, please visit <https://www.kcl.ac.uk/prospectus/graduate/index/name/science-istory/alpha/GHI/header search/keyword/history or> contact Dr. Anna Maerker at anna.maerker@kcl.ac.uk.

Read about the South Australian Maritime Museum in *Signals* 101 (December 2012 – February 2013), pp. 46-51. The collection began in 1872 and its history and current collections are discussed in this article by Kevin Jones, the Museum's Director. The South Australian Maritime Museum is open 10 a.m. until 5 p.m. seven days a week other than Christmas. It is located at 126 Lipson Street, Port Adelaide. For additional information, please visit www.samaritimemuseum.com.au.

Signals 101 (pp. 44-45) also includes “Indigenous Watercraft – Accolades and Activities,” a discussion of the Australian National Maritime Museum’s May 2012 conference, ‘Nawi, exploring Australia’s indigenous watercraft. The meeting stimulated community action, as well as continued learning.

Eight three-year postdoctoral fellowships are now available through the collaboration of the Freie Universität in Berlin, the Humboldt-Universität Zu Berlin, the Technische Universität, and the Max Planck Institute for the History of Science. The fellowships are intended for promising junior scholars with records of excellence in the history of knowledge and the participants will be expected to actively work towards the establishment of the Berlin Center for the History of Knowledge, cooperate with partner institutions, and contribute their work on the relationships between the histories of knowledge and science. Candidates are requested to submit the following by April 15, 2013: curriculum vitae with publications, research proposal on a topic related to the project (maximum of 750 words), two letters of reference (one from dissertation advisor), and certification of academic qualifications. Please send those materials to: Max Planck Institute for the History of Science, Administration, Reference: “Postdocs Zentrum,” Boltzmannstr. 22, 14195 Berlin, Germany.

The Institute of Contemporary History at the University of Vienna, Austria, announces a Visiting Scholars-in-Residence program for the project “Tropical Botany in Exile. Mona Lisa Steiner (1915-2000): Scientific Continuities, Transfers and Practices in Austria and the Philippines,” to be directed by Prof. Carola Sachse. Possible research fields include circulation of knowledge and culture, scientific practices, plant systematics, international communication and exchange, and plant sciences and the Cold War. For additional information, please contact: Project “Tropical Botany,” University of Vienna, Department of Contemporary History, Spitalgasse 2-4/Hof 1, Vienna, Austria 1090.

The Polar Journal 2:2 (2012) includes interdisciplinary articles of possible interest to Circle members. Among those articles are: “Failures of the Magnetic Research on the Discovery Antarctic Expedition, 1901-1904,” by Andrew Atkin, pages 200-218; “The Otters of Amchitka: Alaskan Nuclear Testing and the Birth of the Environmental Movement,” by D.J. Kinney, pages 291-311; and “On Frozen Ground: William E. Davies and the Military Geology of Northern Greenland, 1952-1960,” by Christopher Jacob Ries, pages 334-357.

The Pacific Division of the AAAS has established a special web site for students. It includes information about funding, awards and other matters of interest to students. Please visit <http://associations.sou.edu/aaaspd/Students/Students.html>.

East Asian Science, Technology and Society: An International Journal 6:4 (2013) is a special issue focusing on “What is Distinctive East Asian STS: Method, Assemblages, or Theories?” Ruey-Lin Chen and Daiwie Fu are the guest editors. Articles of possible interest to Circle Members include: “Asia as Method in Science and Technology Studies,” by Warwick Anderson, pages 445-451 and “A Voyage to East Asian STS Theories; or, What Might Make and STS Theory East Asian,” by Ruey-Lin Chen, pages 465-485. The issue also includes a panel discussion on “The Semicentennial of The Structure of Scientific Revolutions and East Asian STS,” pages 519-567.

The Cambridge Digital Library recently launched samples of material from the Board of Longitude archive, which is being digitized as the JISC-funded project, “Navigating Eighteenth Century Science and Technology: The Board of Longitude.” Three volumes are available: the first volume of confirmed Minutes from 1737-1779, which includes a full transcription and covers all the meetings involving John Harrison; William Wales’s log from Cook’s second voyage; and letters and reports by astronomers and captains about late-18th and early-19th-century voyages. Links with Greenwich collections are also being built. The materials can be viewed for free at the following: <http://cudl.lib.cam.ac.uk/collections/longitude>. Please send feedback to Huw Jones at Cambridge University Library at hek23@cam.ac.uk.

The National Maritime Museum (United Kingdom) is now accepting applications for paid internships in the History of Science and Technology. The deadline is April 22, 2013. The main emphasis will be on the collections, and this will include work on archival materials with a primary focus on the use of artifacts for research. The internships will last for one to two months. Who can apply? All postgraduate students and final year undergraduates who want to use research on the Museum’s collections. Applications will also be considered from those in between course work, such as in between undergraduate and graduate programs, or students wishing to research a potential MPhil or PhD topic. Applications should include a curriculum vitae, an outline of no more than 500 words for the proposed research topic, and an indication of the final result, such as an article or online resource. For additional information, please contact Dr. Heloise Finch-Boyer, Curator of Science and Technology, at hfinch-boyer@rmg.co.uk. Please visit www.rmg.co.uk/researchers/fellowships-and-internships/intern-programme/.



SELECTED RECENT PACIFIC BIBLIOGRAPHY

BOOKS and BOOK CHAPTERS

Burke & Wills: The Scientific Legacy of the Victorian Exploring Expedition, edited by **E.B. Joyce** and **D.A. McCann**, CSIRO Publishing, 2012.

Contagion and Enclaves: Tropical Medicine in Colonial India, by **Nandini Bhattacharya**, Liverpool University Press, 2012.

Ma 'i Lepera: Disease and Displacement in Nineteenth-Century Hawaii, by **Kerri A. Inglis**, University of Hawai'i Press, 2013.

The Great Barrier Reef – A Journey Through the World's Greatest Natural Wonder, by **Len Zeli**, Murdoch Books Australia, 2012.

Health, Medicine, and the Sea: Australian Voyages, c. 1815-60, by **Katherine Foxhall**, Manchester University Press, 2012.

Pacific History: Ocean, Land, Peoples, edited by **David Armitage** and **Alison Bashford**, eds., Palgrave-Macmillan, 2013.

The Power of the Sea: Tsunamis, Storm Surges, Rogue Waves, and Our Quest to Predict Disasters, by **Bruce Parker**, Palgrave-Macmillan, 2012.

The Qing Opening to the Ocean: Chinese Maritime Policies, 1684-1757, by **Gang Zhao**, University of Hawai'i Press, 2013.

Restoring Paradise: Rethinking and Rebuilding Nature in Hawaii, by **Robert J. Cabin**, University of Hawai'i Press, 2013.

Tricholomas of North America: A Mushroom Field Guide, by **Alan E. Bessette**, **Arleen R. Bessette**, **William C. Roody**, and **Seven A. Trudell**, University of Texas Press, 2012.

ARTICLES and ESSAYS

“Australian and Indian Plants: Making Connexions in Nineteenth-Century Botany,” by **Sara Maroske**, *Historical Records of Australian Science* 23:2 (2012), pp. 107-119.

“Australian Climate, Energy and Water Policies: Conflicts and Synergies,” by **Jamie Pittock**, **Karen Hussey**, and **Samuel McGlennon**, *Australian Geographer* 44:1 (2013), pp. 3-22.

“Biological Control of the Fruit-Spotting Bug *Amblypelta lutescens* Using Weaver Ants *Oecophylla smaragdina* on African Mahoganies in Australia,” by **Renkang Peng, Keith Christian, and Don Reilly**, *Agricultural and Forest Entomology* 14:4 (2012), pp. 428-433.

“Characteristics of the Early Cretaceous Igneous Activity in the Korean Peninsula and Tectonic Implications,” by **Sung Won Kim, Sanghoon Kwon, In-Chang Ryu, Youn-Joon Jeong, Sung-Ja Choi, Weon-Seo Kee, Keewook Yi, Youn Soo Lee, Bok Chul Kim, and Deok Won Park**, *The Journal of Geology* 120:6 (2012), pp. 625-646.

“Chromosome Counts and Genome Size of *Leontopodium* Species (Asteraceae: Gnaphalieae) from South-Western China,” by **Anton Russell, Stefan Safer, Hanna Weiss-Schneeweiss, Eva Tensch, Hermann Stuppner, Tod F. Stuessy, and Rosabelle Samuel**, *Botanical Journal of the Linnean Society* 171:3 (2013), pp. 627-636.

“Darwin in the House,” by **Rebecca Stott**, *Smithsonian Magazine* 43:10 (2013), pp. 60-67.

“Delimitation of the Spider Genus *Sesieutes* Simon, 1897, with Descriptions of Five New Species from South East Asia (Araneae: Corinnidae),” by **Pakawin Dankittipakul and Christa Deeleman-Reinhold**, *Journal of Natural History* 47:3&4 (2013), pp. 167-195.

“Diversity and Abundance of Fungivorous Thrips (Thysanoptera) Associated with Leaf-Litter and Bark Across Forest Types and Two Tree Genera in Subtropical Australia,” by **D.J. Tree and G.H. Walter**, *Journal of Natural History* 46:47&48 (2012), pp. 2897-2918.

“Epibionts on the Krill (*Euphausia pacifica*) from the East Coast of Japan,” by **Gregorio Fernandez-Leborans**, *Acta Zoologica* 94:2 (2013), pp. 167-176.

“Early Developments in Treating Pyritic and Refractory Gold Ores in Australia,” by **Ken McQueen**, *The Journal of Australasian Mining History* 10 (October 2012), pp. 88-102.

“Effects of Human Disturbance on Liana Community Diversity and Structure in a Tropical Rainforest, Malaysia: Implication for Conservation,” by **Patrick Addo-Fordjour, Zakaria B. Rahmad, and A.M.S. Shahrul**, in *Journal of Plant Ecology* 5:4 (2012), pp. 391-399.

“Extremalona Timmsi Gen. Nov. Sp. Nov., a New Cladoceran (Cladocera: Anomopoda: Chydoridae) from an Acid Saline Lake in Southwest Western Australia,” by **Artem Y. Sinev** and **Russell J. Shiel**, *Journal of Natural History* 46:45&46 (2012), pp. 2845-2864.

“Four New and Six Known Species of the Genus *Dorylaimellus* Cobb, 1913 (Nematoda: Belonidiridae) from India,” by **Wasim Ahmad** and **Tabbasam Naz**, *Journal of Natural History* 46:45&46 (2012), pp. 2787-2828.

“Four New Species of *Lycocerus* Gorham, 1889 from China (Coleoptera: Cantharidae),” by **Yu-Xia Yang** and **Xing-Ke Yang**, *Journal of Natural History* 47:1&2 (2013), pp. 75-86.

“Intraspecific Karyotypic Polymorphism is Highly Concordant with Allozyme Variation in *Lysimachia Mauritiana* (Primulaceae: Myrsinoideae) in Taiwan: Implications for the Colonization History and Dispersal Patterns of Coastal Plants,” by **Yoshiko Kono**, **Kuo-Fang Chung**, **Chih-Hui Chen**, **Yoshikazu Hoshi**, **Hiroaki Setoguchi**, **Chang-Hung Chou**, **Kazuo Oginuma**, and **Ching-I Peng**, *Annals of Botany* 110:6 (2012), pp. 119-135.

“Light Requirements of Australian Tropical vs. Cool-Temperate Rainforest Tree Species Show Different Relationships with Seedling Growth and Functional Traits,” by **Christopher H. Lusk**, **Jeff W. G. Kelly**, and **Sean M. Gleason**, *Annals of Botany* 111:3 (2013), pp. 479-488.

“Metasomatized Lithospheric Mantle beneath the Western Qinling, Central China: Insight into Carbonatite Melts in the Mantle,” by **Ben-Xun Su**, **Hong-Fu Zhang**, **Ji-Feng Yeng**, **Yan-Jie Tang**, **Yan Hu**, and **M. Santosh**, *The Journal of Geology* 120:6 (2012), pp. 671-681.

“Molecular Phylogenetics and Biogeography of the Eastern Asian-Eastern North American Disjunct *Mitchella* and its Close Relative *Damnacanthus* (Rubiaceae, Mitchelleae),” by **Wei-Ping Huang**, **Hang Sun**, **Tao Deng**, **Sylvain G. Razafimandimbison**, **Ze-Long Nie**, and **Jun Wen**, *Botanical Journal of the Linnean Society* 171:2 (2013), pp. 395-412.

“Molecular Phylogeny and Biogeography of *Astilbe* (Saxifragaceae) in Asia and Eastern North America,” by **Wei-Dong Zhu**, **Ze-Long Nie**, **Jun Wen**, and **Hang Sun**, *Botanical Journal of the Linnean Society* 171:2 (2013), pp. 377-394.

“The Moveable Typewriter: How Chinese Typists Developed Predictive Text during the Height of Maoism,” by **Thomas S. Mullaney**, *Technology and Culture* 53:4 (2012), pp. 777-814.

“Mycorrhizal Preference Promotes Habitat Invasion by a Native Australian Orchid: *Microtis media*,” by **Jonathan R. De Long**, **Nigel D. Swarts**, **Kingsley W. Dixon**, and **Louise M. Egerton-Warburton**, *Annals of Botany* 111:3 (2013), pp. 409-418.

“Natural Occurrence of Entomopathogenic Nematode Species (Rhabditida: Steinernematidae and Heterorhabditidae) in Cotton Fields in Tamil Nadu, India,” by **N. Seenivasan**, **S. Prabhu**, **S. Makesh**, and **M. Sivakumar**, *Journal of Natural History* 46:45&46 (2012), pp. 2829-2843.

“Nesting Habits of the Japanese Foliage Spider, *Cheiracanthium Japonicum* (Araneae: Miturgidae): Host Plant Preference Based on the Physical Traits of Plant Leaves,” by **Yutaka Hironaka** and **Hiroshi Abe**, *Journal of Natural History* 46:43&44 (2012), pp. 2665-2676.

“New Genera and Species of the Sychelidium Group (Amphipoda: Oedicerotidae) from Asia-North Pacific,” by **Young-Hyo Kim**, **Ed A. Hendrycks**, and **Kyung-Sook Lee**, *Journal of Natural History* 46:37&38 (2012), pp. 2349-2376.

“A New Genus *Globulidrilus* and Three New Enchytraeid Species (Oligochaeta: Enchytraeidae) from Seoraksan National Park (Korea),” by **Bent Christensen** and **Klara Dozsa-Farkas**, *Journal of Natural History* 46:45&46 (2012), pp. 2769-2785.

“New Records and Hosts for Three Species of Pseudionine Bopyrids (Crustacea: Isopoda: Bopyridae) Parasitizing Munidid Squat Lobsters (Crustacea: Anomura: Munididae) in Philippine Waters,” by **Jianmei An**, **Christopher B. Boyko**, and **Haiyan Yu**, *Journal of Natural History* 46:45&46 (2012), pp. 2881-2888.

“A New Species of *Cerchysiella* (Hymenoptera: Encyrtidae) Parasitic in Larva of Chestnut Trunk Borer (Coleoptera: Cerambycidae) from China with Notes on its Biology,” by **Zhong-qi Yang**, **Hua Tang**, **Xiao-yi Wang**, **Jian-rong Wei**, and **Hai-bing Zhao**, *Journal of Natural History* 47:3&4 (2013), pp. 129-138.

“Patterns of Species Participation Across Multiple Mixed-Species Flock Types in a Tropical Forest in Northeastern India,” by **Umesh Srinivasan**, **Rashid Hasnain Raza**, and **Sygek Quader**, *Journal of Natural History* 46:43&44 (2012), pp. 2749-2762.

“Photosynthetic Thermotolerance of Woody Savanna Species in China is Correlated with Leaf Life Span,” by **Jiao-Lin Zhang**, **L. Poorter**, **Guang-You Hao**, and **Kun-Fang Cao**, *Annals of Botany* 110:5 (2012), pp. 1027-1033.

“Producing Knowledge about Tropical Fevers in the Andes: Preventive Inoculations and Yellow Fever in Colombia, 1880-1890,” by **Monica Garcia**, *Social History of Medicine* 25:4 (2012), pp. 830-847.

“Rate Heterogeneity in Six Protein-Coding Genes from the Holoparasite *Balanophora* (Balanophoraceae) and Other Taxa of Santalales,” by **Huel-Jiun Su** and **Jer-Ming Hu**, *Annals of Botany* 110:6 (2012), pp. 1137-1147.

“Redescription of *Alloclubionoides Paikwunensis* (Kim and Jung, 1993) and a New Spider Species *Alloclubionoides Solea* Sp. Nov. from Korea (Araneae: Agelenidae),” by **Byung-Woo Kim** and **Joo-Pil Kim**, *Journal of Natural History* 46:39&40 (2012), pp. 2387-2400.

“Regeneration Dynamics of Subalpine Fir (*Abies fargesii*) Forest Across the Altitudinal Range in the Shnnongja Mountains, Central China,” by **Haishan Dang**, **Kerong Zhang**, **Yanjun Zhang**, **Xunzhang Tong**, and **Quanfa Zhang**, *Journal of Plant Ecology* 6:1 (2013), pp. 36-47.

“Review of the genus *Calamotropha* Zeller (Lepidoptera: Crambidae: Crambinae) from China, with Descriptions of Four New Species,” by **Weichun Li** and **Houhun Li**, *Journal of Natural History* 46:43&44 (2012), pp. 2639-2664.

“Review of the Genus *Scyracepon* Tattersall, 1905 (Crustacea: Isopoda: Bopyridae), with Description of a New Species from China,” by **Jianmei Ana**, **Christopher B. Boyko**, and **Haiyan Yu**, *Journal of Natural History* 46:45&46 (2012), pp. 2889-2895.

“Silencing of EcFLO, a Floricaula/Leafy Gene of the California Poppy (*Eschscholzia californica*), Affects Flower Specification in a Perigynous Flower Context,” by **Sara Wreath**, **Conny Bartholmes**, **Oriane Hidalgo**, **Andrew Scholz**, and **Stefan Gleissbert**, *International Journal of Plant Sciences* 174:2 (2013), pp. 139-153.

“The South American Radiation of *Lepechinia* (Lamiaceae): Phylogenetics, Divergence Times, and Evolution of Dioecy,” by **Bryan T. Drew** and **Kenneth J. Sytsma**, *Botanical Journal of the Linnean Society* 171:1 (2013), pp. 171-190.

“The Strangest Tadpole: the Oophagous, Tree-Hole Dwelling Tadpole of *Rhacophorus vampyrus* (Anura: Rhacophoridae) from Vietnam,” by **J.J.L. Rowley**, **D.T.A. Tran**, **D.T.T. Le**, **H.D. Hoang**, and **R. Altig**, *Journal of Natural History* 46:47&48 (2012), pp. 2969-2978.

“A Systemic Study of the Genus *Bannatettix* Zheng (Orthoptera: Tetrigidae),” by **Wei-An Deng, Zhe-Min Zheng, and Shi-Zhen Wei**, *Journal of Natural History* 46:37&38 (2012), pp. 2377-2386.

“A Taxonomic Study of the Genus *Coptotettix* Bolivar, 1887 (Orthoptera: Tetrigidae: Tetringinae) from China with Description of A New Species,” by **Zhe-Min Zheng, Li-Liang Lin, and Hong-Li Zhang**, *Journal of Natural History* 46:41&42 (2012), pp. 2549-2561.

“Time and Tempo of Diversification in the Flora of New Caledonia,” by **Yohan Pillon**, *Botanical Journal of the Linnean Society* 170:3 (2012), pp. 288-298.

“Three New Earthworms of the Genus *Amyntas* (Megascolecidae: Oligochaeta) from Eastern Taiwan with Redescription of *Amyntas hongyehensis* Tsai and Shen, 2010,” by **Huei-Ping Shen**, *Journal of Natural History* 46:37&38 (2012), pp. 2250-2283.

“Transforming the Forests of a Counterfeit Nation: Japan’s “Manchu Nation” in Northeast China,” by **Patrick J. Caffrey**, *Environmental History* 18:2 (2013), pp. 309-332.

“Two New Sarsiellinae (Ostracoda: Myodocopa) from Ningaloo Reef (Western Australia), with a Cladistic Analysis of the Subfamily and Keys to Genera,” by **I. Karanovic**, *Journal of Natural History* 46:37&38 (2012), pp. 2285-2327.

DISSERTATIONS

Dissertation Review (<http://dissertationreviews.org/>) provides overviews of recently defended and unpublished dissertations and articles on archives and libraries. Among the possible sections, or series of interest might be “Social Studies, Medical Anthropology and Bioethics.”

Recent dissertations of possible interest to Circle members include:

Wan Faizah Wan Yusoff, “Malay Responses to the Promotion of Western Medicine, with Particular Reference to Women and Child Healthcare in the Federated Malay States, 1920-1939,” SOAS, University of London, 2010;

Michael Slouber, “Garuda Medicine: A History of Snakebite and Religious Healing in South Asia,” University of California – Berkeley, 2012;

Nicole Elizabeth Barnes, “Protecting the National Body: Gender and Public Health in Southwest China during the War with Japan, 1937-1945,” University of California – Irvine, 2012.

BOOK REVIEWS



Carmel Finley, *All the Fish in the Sea: Maximum Sustainable Yield and the Failure of Fisheries Management*, Chicago, IL: The University of Chicago Press, 2001, Pp. xii + 210. B&W Photos. Charts. Illustrations. Maps. Bibliography. Notes. Index. Cloth: US\$35.00 and ISBN 978-0-226-24966-7.

Maximum Sustainable Yield (MSY) is touted as scientific fisheries management. MSY, however, is founded on little or no science. What little science is involved in the concept is misguided. The consequences for Pacific fisheries have been devastating. Carmel Finley's compelling monograph,

All the Fish in the Sea: Maximum Sustainable Yield and the Failure of Fisheries Management, serves as a biography of MSY exploring how it came to be the basis for global fisheries management programs. Finley's work contributes to the growing literature that demonstrates how post-World War II science and scientists often served as willing tools for the U.S. government; in this case, the State Department. Fishing with free passage through the world's oceans became a matter of national security. MSY did not only serve political needs, however, it also buttressed economic projects. It institutionalized a policy that allowed unrestricted fishing until scientific evidence showed that over fishing had occurred. Yet, there was little scientific evidence of how multi-species fisheries *really* worked, meaning that over fishing became global fisheries management practice. Throughout her analysis Finley clearly argues that MSY was, and remains, "policy disguised as science" (10). This is a story featuring the full panoply of dissonance between groups, each with their own interests and agendas. We encounter conflicts between industry and science, between state and federal governments, between nations, between politics and science, and between scientists. Fish are the ultimate losers.

Modern fishing is not economic; fishing stocks can be on the verge of collapse but still yield large harvests. "Irrational fishing" and declines in catches had been identified as the two main problems in fisheries studies as early as 1905. Although fisheries scientists and managers claimed to be searching for ways to making fishing "rational" (e.g. scientific), irrational fishing was promoted by the U.S. Fish Commission (founded in 1903) whose primary concern was finding ways to make

more fish rather than restricting how and where to fish. In the early 1900s, with the support of the federal government, American canning companies operating out of Alaska (but headquartered elsewhere) set the agenda to catch and can as much fish as possible. Since only cheap labor could guarantee cheap fish, canneries relied on Chinese workers to process the catches leaving the small resident population of the territory to struggle with outside interests that controlled much of their economy. In opposition to the territorial government's efforts to restrict fishing, the federal government sided with the canners; a process that was repeated in California in the 1930s when state biologists tried to restrict the sardine catch. "This ideological division between the interests of state and federal scientists," Finley explains "was an important factor in inhibiting the development of American fisheries science" (24). Despite persistent questions about natural fluctuations versus decline in stocks, managers were loath to restrict fishing because these connections remained uncertain.

The story of MSY is underpinned by the premise that American security was linked to unrestricted fishing with open access to the waters of other nations, and that American science could justify this stance. This science/policy duality was of particular importance in U.S. relations with Japan. While the U.S. government's support of its fishing industry emphasized fishing without regulation, the Japanese saw their fishing and whaling industry as not only key to attaining leadership of eastern Asia, but also a sacred mandate to develop the ocean's resources. The Japanese fishing industry was heavily subsidized by the government. Fishing had to be strictly regulated because so many villages were dependent on local waters for food. Japanese fishermen and processors were paid extremely low wages, worked long hours under unsanitary conditions, and fed poor quality foods. The Japanese fleet, alternatively, highlighted Japan's modernity and industrialism featuring diesel engines and onboard salting, canning, and refrigeration plants. By the 1930s, Japan was the world's largest fishing nation, followed by the United States. As the Japanese depleted nearby fisheries, they went in search of fresh fishing opportunities to the east, breaching the salmon-rich waters of Alaska's Bristol Bay.

Fishing, however, has always been about more than just fish. As Finley recounts, the attack on Pearl Harbor, in fact, was considered by many in the salmon industry as Japan's attempt to take over the American fishing industry. Likewise, many believed that Japanese fishermen who had immigrated to the U.S. acted as spies during the War. Although the Japanese and American fishing *industries* may have begun their battle in the 1930s, it wasn't until after World War II that the conflict between the fisheries *science* of the two countries was truly waged.

The American Occupation of Japan began on 30 August 1945. Rebuilding Japan was a primary goal because the U.S. needed it as a rampart against the communist

bloc of China and the Soviet Union. The Occupation was overseen by the Supreme Commander Allied Powers (SCAP) whose first task was to feed a starving Japan. Fish were an obvious choice. SCAP set about rebuilding the Japanese fishing fleet, which had suffered losses during the War. Another of SCAP's primary goals was to reform Japanese fisheries science into the American model. American occupiers were aided in this objective by the postwar Japanese milieu in which many considered their loss to the Allied Powers as being due to deficiencies in science and technology. They saw the development and deployment of the atom bomb as the exemplar of their failure.

Like the Japanese, SCAP scientists considered Japanese fisheries science inadequate. Yet, SCAP quickly located and translated Japanese fishery research. Unlike Americans, Japanese scientists had conducted at-sea research on basic ocean science. In addition, they had made use of hundreds of marine biology stations. The Japanese model of biological oceanography was based on study of the geographic range of individual fish populations, research Americans had not attempted. SCAP argued the majority of these efforts were aimed at locating fish for commercial fishermen, testing gear, and training fishermen. Americans interpreted Japanese fisheries policies stressing control of resources as concern only for catching fish, not conserving them. Americans "conserved" fish, the Japanese did not. Occupation forces intended not only to convert the Japanese to American science but also Western democracy. But this change in ideological governance depended on science and the management of resources. The Potsdam Declaration had stipulated that the Japanese have access to the same resources they had used before the War including Alaskan fisheries. Fulfilling the promises of the Declaration was instrumental to ensuring Japanese signature of the peace treaty officially ending the War. How could SCAP control where the Japanese fished without jeopardizing the peace treaty?

The answer was to design a fisheries policy that looked like Western science, but actually was foreign policy. The answer was MSY. MSY was conceived by Washington state ichthyologist Wilbert McLeod Chapman, an ardent Progressive. "Conservation" in the Progressive sense of the word, was about *using* resources as efficiently as possible. Chapman saw the Pacific as the equivalent of the Great Plains, with its fishing resources, especially tuna, as plentiful as buffalo before Western expansion. He defined MSY as making "possible the maximum production of food from the sea on a sustained basis year after year" (2). He believed that heavy fishing actually helped sustainability by culling older animals and freeing up resources for younger fish to grow more quickly. This concept might be seen as an adaptation of an earlier idea introduced by International Fisheries Commission director William F. Thompson. In a 1934 report, Thompson had proved that depleted fish stocks could be reversed by regulating fishing. Regulating fishing – through scientific management

– would allow immature fish to grow, subsequently providing fishermen with larger fish, which would bring them more money. The question was how to scientifically regulate fishing. The answer was Chapman’s MSY.

Chapman had tremendous faith in scientists’ ability to offer technical assistance to policy makers. Fisheries scientists embraced the new tools of mathematical models and population dynamics with religious zeal but the policy that came out of their science had little connection to the real world. Focusing on one fish species at a time, fisheries management became a continual battle to allocate shrinking resources to too many fishermen. Chapman envisioned an armada of American fishing boats that would insure claims to vast stretches of the Pacific; an idea that dove-tailed with postwar foreign-policy objectives. The unofficial policy had always been to harvest the maximum number of fish, but postwar fisheries policy made maximum harvest a national duty. Chapman helped translate this political imperative into a scientific theory, MSY, and MSY into high-seas policy. Chapman published his ideas in 1949 in the *Department of State Bulletin*, not a refereed scientific journal. Shockingly, the graph supporting the MSY theory has no numerical scale – there is no quantitative evidence to suggest any relationship to how fish populations rise and fall. The mathematical formulas to establish MSY levels were not published until 1954. “The United States sought a policy that would legitimize its extensive network of fisheries, yet protect its most valuable fishery (Bristol Bay salmon) from other fishermen, in effect, to have their fish and eat them too” (97). The answer was MSY.

Meanwhile, Latin American countries had tried to limit American access to their fishing resources for some time, even to the point of armed confrontations. Latin American countries were profoundly unhappy with U.S. postwar policy in their region. U.S. policy makers working in the area were concerned about hunger because starving peoples lead to political instability, opening the door to Communist forces. As with Japan, many believed the solution was to transfer Western technology and ideology to developing countries. The struggling nations soon found themselves stuck between a rock and a hard place. Territorial pressures forced Americans to fish further from U.S waters intruding on Latin American stocks. At the same time, while attempting to build their own fishing industries, Latin American countries battled against tariffs over entry into U.S. tuna markets. In response to these tensions, Ecuador, Mexico, and Panama increased the fees they charged for foreign boat entry into their fishing grounds. Meanwhile, Chile, Ecuador, Peru, and Columbia enacted the Santiago Declaration, which expanded the concept of territorial waters allowing for the exclusion of not only American boats but also Japanese and European. Not to be outdone, American scientists went on the offensive, encouraging Latin American countries to adopt the same political concept they had forced on the Japanese. The “principle of abstention” promoted research

and management of fisheries on a scientific basis while allowing other countries to fish unused or underused stock. What determined “unused or underused” stock on a scientific basis? The answer was MSY.

The International Technical Conference on the Conservation of the Living Resources of the Sea held in Rome in April 1955 legalized MSY as the scientific goal of international fisheries management. British scientist Michael Graham opposed American use of the concept of maximum sustainable yield. In his interpretation, the way to insure maximum sustainable yield of resources in the form most useful to man was to control man’s activities. Graham’s ideas were dismissed by the political and economic cadre that ran the Conference. Although the Conference was not supposed to discuss economic or political issues, non-scientists controlled the meeting. Economists and politicians promoted the belief that stocks had a harvestable surplus that scientists could accurately estimate, and that fishing need not be regulated until that scientifically determined limit was reached. An amendment by the governments of Mexico and Peru acknowledged that coastal states had special interests; potentially opening the door to future territorial expansion that might limit the distant-water fishing fleets of the larger fishing nations (Japan, Great Britain, and the United States). But, with MSY as its champion, the meeting in Rome made the world safe for distant-water fishing allowing the richer nations to exploit the fish resources of less powerful nations, especially those in Latin America. These nations were compelled to develop their fisheries using Western science and ideas about fish; leaving their communities with fewer fish and higher costs. This is the story of the ultimate industrial capitalist system – the global fishing industry, which claims to be scientific, but isn’t.

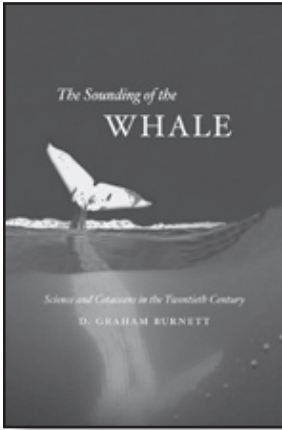
This is a big story, which, like global fisheries, can be hard to manage. This is especially true when Finley attempts to display the histories of various fish species and the impact over fishing had on them. Another area where clarity would be helpful regards the question of whether Japanese fisheries science was *truly* weak. She describes how the Japanese embraced Western science after the Meiji restoration of 1860, and how the Japanese published, in English, their oceanography and fishery research as early as 1923. Papers by Japanese oceanographers dominated the 1939 Sixth Pacific Congress in San Francisco. One of SCAP’s priorities had been to translate Japanese fisheries science into English. So, why is Japanese science continually framed as inferior? Finley argues this is evidence of postwar scientific racism; a problem she contends is at the heart of present-day conflicts between Japanese and Western scientists and environmentalists. The Japanese insist there is valuable information to be gained by analyzing the stomach contents of dead whales; while Western scientists dismiss this idea. How are those of us with limited knowledge about fisheries science to interpret this information? If we are to believe

SCAP's propaganda against Japanese science (e.g. scientific racism) influences what is considered good whaling science *today*, I believe we need more details and contextualization of the issue – both in the past and the present.

These are minor complaints, however. Overall, this text is a tour-de-force of environmental history and one that readers of this journal will appreciate. Finley clearly demonstrates how postwar American scientists and policy makers transformed “conservation” from the Progressive concept of maximum utilization of resources, to conserving American rights to the fish and territorial waters of other countries. She shows how science can be manipulated by political agendas with global consequences that persist. More to the point, this book shows why Pacific fisheries are in such dire straits today. “The twenty-first century needs a new story about all the fish in the sea,” Finley writes as she embarks on her tale, “a story that emphasizes their fragility (7)”. This text is the beginning of that story.

Laura Harkewicz
University of Washington





D. Graham Burnett, *The Sounding of the Whale: Science and Cetaceans in the Twentieth Century*, Chicago and London: University of Chicago Press, 2012, Pp, xxii + 793. Illustrations: Figures and Plates (photos). Notes. Bibliography. Index. Cloth: US\$45.00 and ISBN 978-0-226-08130-4 and ISBN 0-226-08130-3.

In August 1952, at a gathering of Latin American scientists, statesmen, and fisheries executives (*Conferencia sobre Explotación y Conservación de las Riquezas Marítimas del Pacífico Sur*), the Chilean foreign minister, Fernando Garcia Oldini, gave voice to a sentiment that would eventually help both to undermine the effectiveness of one of the world's most ambitious conservation agreements, the International Convention for the Regulation of Whaling of 1946, and to nourish "the fraught issue of territorial seas, a problem that [would] ripple[d] in concentric rings across the geopolitics of the Cold War world in the years to come" (p 419). Minister Garcia pointed to the cold north-flowing Peru (Humboldt) Current which, aided by intense upwelling along the narrow western shelf of the continent, supports an unequalled profusion of marine life, including an abundance of cetaceans (whales, dolphins, and porpoises). This phenomenon epitomized, or so the argument went, the tight coupling of land-based sources of nutrients and oceanic physical forcing processes. Such an ecological linkage between land and sea would be used to justify and underpin claims by coastal states of exclusive rights to benefit from and manage resources (including whales) not only inside the prevailing 3 nautical mile limit, but also well beyond it.

Garcia and other diplomats from the region were understandably wary of their European and North American counterparts who were trying to consolidate the hegemony of the International Whaling Commission (IWC) as the recognized body for managing the exploitation (and to be fair, the conservation) of the world's whale stocks. After all, the factory ships from IWC countries, after spending an Antarctic season catching and processing baleen whales, would often "top up" their catches in the off-season by taking "bumper crops" of sperm whales in the South Pacific. This "infuriated Chilean officials, who complained (not unreasonably) that if these animals were cleaned up in offshore waters, there would be little left for their short-range catchers," particularly when at the same time the IWC was proposing to prohibit new shore stations within 1,000 miles of existing ones, thereby dealing "a crushing blow to Chile's small but growing coastal whaling industry" (p 417).

The ecological argument for regional instead of international regulation of whaling met strong resistance from IWC member countries whose whalers were accustomed to having free access to whales everywhere as part of a global commons. If such access was going to be restricted, they were determined that it should be on their terms and not those of coastal states or regional blocs. *The Sounding of the Whale* posits that the Santiago Declaration of 1952, which would lead in due course to acceptance of the 200 nautical mile Exclusive Economic Zone as nothing less than global customary law, was intimately and intricately linked to maneuverings and machinations within the still-nascent IWC.

This tome is about whales, first and foremost, but also much more. The author situates his work at the intersection of several disciplines rather than solely within the realm of the history of science (which he teaches at Princeton University). Indeed, there is much here that one might assign to philosophy, international law, and cetacean biology as well as to plain history (e.g. of the modern whaling industry and of the whale conservation movement). All those disciplinary riffs, however, ultimately converge on two unifying questions or themes, both having to do with the history of science: (1) How has the field of cetology (whale science) progressed through time, specifically between the early days of modern commercial whaling, which began in the 1860s, and its end days just prior to the 1982 global “moratorium” imposed by the IWC? (2) How has that progression influenced and shaped decisions, events, attitudes, and ways of thinking – i.e. what did it mean “to have scientific knowledge of cetaceans at various moments in the twentieth century” (p 3)?

For the most part, the action takes place in scientific laboratories and committee meeting rooms. In fact, the author is preoccupied (in a good way) with what he calls “boundary work,” exploring the often fuzzy line between objective science and politics. He sees the “central historical problem” as determining how to “approach the workings of science in the complicated arena of intergovernmental environmental regulations” (p 667). Few if any natural resource conflicts are as rife with tension between advocacy and impartiality as the so-called whaling debate. Keeping science neutral and unbiased when the subjects of study, or of exploitation and management, are as magnificent and revered as whales, can be a steep challenge. One of the many things I like about this book is the way Burnett probes, relentlessly, to understand the sensibilities and motives not just of whalers and whale-huggers but of the scientists (both the hip-booted and the chalkboard varieties) and bureaucrats and politicians who have literally decided the fates of many hundreds of thousands, in fact millions, of whales – the official tally of reported catches by modern whaling in the Southern Hemisphere alone between 1904 and 2005 was well over 2 million animals (baleen whales and sperm whales, combined).

Burnett is a first-class story teller. Not a yarn spinner who preys on the credulous, but rather a scholar who seems to relish his subject and invites, urges, and sometimes almost insists that the reader shares his enthusiasm for it. He is also a humanist and a seeker whose transparent thought processes are engrossing, occasionally amusing, and frequently provocative. His use of language is itself a joy and a challenge. In some respects, his writing has the feel of jazz – hard to pin down, fresh and original, synthetic, unpredictable, at times playful, and always compelling. One of the book’s best features is the meticulous, reader-friendly footnoting that never disappoints or distracts. Burnett has a wonderful knack for knowing how far to take the main text and for when a thought is better relegated to a footnote. Still, I found myself repeatedly being drawn into the footnotes for more than mere documentation of sources – a footnote is often the repository of a delightful (and informative) aside.

As suggested by its length (and incidentally, the font is small), this book is not an easy read. But for anyone with a serious interest in whales and whaling, or who wishes to explore the boundary between science and policy-making through a fascinating, painstakingly researched, and eloquently written case study, *The Sounding of the Whale* would be a fine choice.

Randall Reeves
Okapi Wildlife Associates
Hudson, Quebec, Canada

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Prof. Peter H. Hoffenberg
 Editor, *Bulletin of the Pacific Circle*
 Department of History
 University of Hawai‘i
 Honolulu, Hawai‘i 96822 USA

Phone: (808) 956-7675
 Fax: (808) 956-9600
 Email: peterh@hawaii.edu

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