

# THE PACIFIC CIRCLE



April 2017

BULLETIN NO. 38

ISSN 1520-3581

## CONTENTS

|  |           |
|--|-----------|
| <b>PACIFIC CIRCLE NEWS and NOTES .....</b>   | <b>2</b>  |
| <b>FUTURE MEETINGS, CONFERENCES and CALLS FOR PAPERS .....</b>   | <b>3</b>  |
| <b>SELECTED RECENT and FORTHCOMING PACIFIC BIBLIOGRAPHY .....</b>  | <b>4</b>  |
| <b>BOOK REVIEWS .....</b>  | <b>11</b> |
| <i>Aya Hirata Kimura, <b>Radiation Brain Moms and Citizens Scientists: The Gender Politics of Food Contamination after Fukushima</b></i> |           |
| reviewed by Adam Witten, University of Hawai'i – Mānoa .....   | 11        |
| <i>James Alix Michel, <b>Rethinking the Oceans: Towards the Blue Economy</b></i>   |           |
| reviewed by Håkon With Andersen, Norwegian University of Science and Technology .....  | 15        |
| <b>SUBSCRIPTION and STAFF INFORMATION .....</b>  | <b>18</b> |

---

## PACIFIC CIRCLE NEWS

---

### **Business Matters**

The Circle's email address is: [thepacificcircle@gmail.com](mailto:thepacificcircle@gmail.com). Please contact the editor should you have any questions, or requests. Information to be shared about member publications and conferences can be sent, as well.

The University of Hawai'i Foundation requests that dues or contributions made by check be made payable to "The U.H. Foundation" with "The Pacific Circle" in the memo space. The subscription and dues rates remain: US\$25.00 for individuals and US\$35.00 for institutions. Only contributions can be made online. Dues must be paid by check or credit card. Thank you.

The Circle web site includes previous issues, documents from conferences, links to affiliated and complementary groups, and a blog with information about events and publications. There is also an option for searching previous issues of *The Bulletin*. Please visit: <http://thepacificcircle.com>.

### **25th International Congress for the History of Science and Technology**

The Congress will meet in Rio on July 23-29, 2017. Approved symposia are listed at: [http://www.ichst2017.sbhc.org.br/view?ID\\_CONTEUDO=289](http://www.ichst2017.sbhc.org.br/view?ID_CONTEUDO=289) and include one on "Science and Empire on New Localities," no. 45. We have been kindly invited to contribute to this symposium, as the Circle will not be sponsoring one of its own. Please let the editor know if you are attending and would be willing to distribute copies of our *Bulletins*. Additional Congress details can be found at <http://www.ichst2017.sbhc.org.br/>.

### **Pacific Science Association**

Interested in joining or finding out more about the Pacific Science Association? The PSA was founded in 1920 as "a regional, nongovernmental scientific organization" and encourages science and technology in the Pacific region through interdisciplinary collaboration, encouraging science in public policy, and promoting the inclusion of Pacific science in international and regional activities. Please contact the PSA Secretariat at [info@pacificscience.org](mailto:info@pacificscience.org).

### **Recent Publications, Honors & Scholarly Activities by Circle Members**

Congratulations to long-time member, Michael A. Osborne, for his recent election as a Fellow of the American Association for the Advancement of Science. Prof. Osborne earned the honor for his distinguished contributions to the fields of the history of science and medicine, most notably with attention to the roles of French colonialism and natural history.

---

## FUTURE MEETINGS, CONFERENCES and CALLS FOR PAPERS

---

19-23 June 2017. AAS-PD Annual Conference, to be held on the Big Island of Hawai'i, at the Hawai'i Preparatory Academy, located in Waimea (Kamuela). For information about sessions and accommodations, please contact Alan Bain at [baina@si.edu](mailto:baina@si.edu).

6-9 July 2017. Annual Conference of the British Society for the History of Science, to be held in the Ron Cooke Hub on the East Campus of the University of York. The meeting will begin with a plenary lecture by Dr. Patricia Fara, BSHS President, and will continue over the next three days. There will be themed sessions and opportunities to visit archives and historical attractions. Pacific Circle members are invited to attend and honor the 70th anniversary of the BSHS. Please address questions to [programmes@bshs.org.uk](mailto:programmes@bshs.org.uk).

23-29 July 2017. 25th International Congress of History of Science and Technology, to be held at the Federal University of Rio de Janeiro. The theme is: "Science, Technology and Medicine between the Global and the Local." For additional information about papers and accommodations, please visit <http://www.ichst2017.sbhs.org.br/>.

13-16 September 2017. British Society for the History of Medicine Congress, to be held at Surgeons' Hall, Edinburgh, in association with the Society for the Social History of Medicine. The Congress has four themes: Women in Medicine; Scotland's contribution and influence; Apothecaries and their successors, and Art and photography in Medicine. Further details at: <http://bshs.org.uk/>.



---

**SELECT RECENT and FORTHCOMING  
PACIFIC BIBLIOGRAPHY**

---

“Adaptation to Variable Environments, Resilience to Climate Change: Investigating *Land, Water and Settlement* in Indus Northwest India,” by **Cameron A. Petrie, Ravindra N. Singh, Jennifer Bates, Yama Dixit, Charly A.I. French, David A. Hodell, Penelope J. Jones, Carla Lancelotti, Frank Lynam, Sayantani Neogi, Arun K. Pandey, Danika Parikh, Vikas Pawar, David I. Redhouse, and Dheerendra P. Singh**, *Current Anthropology* 58:1 (2017), 1-30.

“Age and Origin of Early Paleozoic and Mesozoic Granitoids in Western Yunnan Province, China: Geochemistry, SHRIMP Zircon Ages, and Hf-in-Zircon Isotopic Compositions,” by **Yuro Shi, J. Lawford Anderson, Zhonghai Wu, Zhenyu Yang, Linlin Li, and Jing Ding**, *The Journal of Geology* 124:5 (2016), 617-630.

“*Alotanypus wilhelmensis* sp. nov. A New Tanypodinae (Diptera: Chromonidae) from High Mountain Lakes in Papua New Guinea,” by **Fabio Laurindo da Silva**, *Austral Entomology* 55:4 (2016), 360-365.

“An Appraisal of Sampling Methods and Effort for Investigating Moth Assemblages in a Fijian Forest,” by **Siteri Tikoca, Simon Hodge, Marika Tuiwawa, Gillianne Brodie, Sarah Pene, and John Clayton**, *Austral Entomology* 55:4 (2016), 455-462.

“The Beginnings of the Japanese Medical Instruments Industry and the Adaptation of Western Medicine to Japan, 1880-1937,” by **Pierre-Yves Donze**, *Australian Economic History Review* 56:3 (2016), 272-291.

“Can Resistance Management Strategies Recover Insecticide Susceptibility in Pests?: A Case Study with Cotton Aphid *Aphis gossypii* (Aphididae: Hemiptera) in Australian Cotton,” by **Grant A. Herron and Lewis J. Wilson**, *Austral Entomology* 56:1 (2017), 1-13.

“Capital in Nature/Nature by Capital: Global Integration and New Zealand’s Forests, 1870-2000,” by **John Weaver**, *Environmental History* 21:4 (2016), 688-717.

“Comparing Analysis of Larval Transcriptomes from Co-Occurring Species of Australian *Cricotopus* (Diptera: Chironomidae),” by **Matt N. Krosch**, *Austral Entomology*, available online at <http://onlinelibrary.wiley.com>.

“Comparing Floristic Diversity and Conservation Priorities across South East Queensland Regional Rain Forest Ecosystems Using Phylodiversity Indexes,” by

**Alison Shapcott, Yining Liu, Marion Howard, Paul E. Forster, W. John Kress, David L. Erickson, Daniel P. Faith, Yoko Shimizu, and William J. F. McDonald,** *International Journal of Plant Sciences* 178:3 (2017), 211-229.

“Computation of Parent Magma Compositions of a Layered Gabbro Suite around Kulliana, Orissa, Eastern India: Implications for Magmatic Evolution and Paleotectonic Setting,” by **Tushar Mouli Chakraborti, Arijit Ray, and Gautam Kumar Deb,** *The Journal of Geology* 124:6 (2016), 723-741.

“Diverse, Primitive Termites (Isoptera: Kalotermitidae, *incertae sedis*) from the early Miocene of New Zealand,” by **Michael S. Engel and Uwe Kaulfuss,** *Austral Entomology* 56:1 (2017), pp. 94-103.

“Diversity and Biogeography of the Little Known Deep-Sea Barnacles of the Genus *Waikalasma* Buckridge, 1983 (Balanomorpha: Chionelasmatoidea) in the Southwest Pacific, with Description of a New Species,” by **Benny K.K. Chan, Hsi-Nien Chen, Paula A. Rodriguez Moreno, and Laure Corbari,** *Journal of Natural History* 50:47-48 (2016), 2961-2984.

“An Early Neoproterozoic Accretionary Prism Ophiolitic Melange from the Western Jiangnan Orogenic Belt, South China,” by **Jinlong Yao, Peter A. Cawood, Liangshu Shu, M. Santosh, and Jinyi Li,** *The Journal of Geology* 124:5 (2016), 587-601.

“Engaging and Narrating the Antarctic Ice Sheet: The History of an Earthly Body,” by **Alessandro Antonello,** *Environmental History* 22:1 (2017), 77-100.

“Exploring Patterns and Pathways of Dietary Change: Preferred Foods, Oral Health, and Stable Isotope Analysis of Hair from the Dani of Mulia, Papua, Indonesia,” by **Andrew D. Somerville, Melanie A. Martin, Lee P. Hayes, Douglas Hayward, Phillip L. Walker, and Margaret J. Schoeninger,** *Current Anthropology* 58:1 (2017), 31-56.

“First Record of a Possible Predatory Collembolan Species, *Dicyrtoma fusca* (Collembola: Dicyrtomidae) in New Zealand,” by **Penelope Greenslade, Stephane Boyer, Morgan W. Shields, and Steve D. Wratten,** *Austral Entomology* (2016), available online at <http://onlinelibrary.wiley.com>.

“Flight Range of the Australian Stingless Bee *Tetragonula carbonaria* (Hymenoptera: Apidae),” by **Jordan P. Smith, Tim A. Heard, Madeleine Beekman, and Ros Gloag,** *Austral Entomology* 56:1 (2017), 50-53.

“First Records of *Uroleucon erigeronense* (Hemiptera: Aphididae) on *Conyza*

(Asteraceae) from Australia, with Descriptions of Morphological Variation, Biological Notes and an Update for Commonly Used Keys,” by **Cameron Brumley** and **Luke Watson**, *Austral Entomology* (2016), available online at <http://onlinelibrary.wiley.com>.

“Genetic Diversity and Differentiation of *Acanthoscelides obtectus* Say (Coleoptera: Bruchidae) Populations of China,” by **Canxing Duan**, **Zhendong Zhu**, **Wangchang Li**, **Shiying Bao**, and **Xiaoming Wang**, *Agricultural and Forest Entomology* (2016), available online at <http://onlinelibrary.wiley.com>.

“Genetic Variation in the Invasive Weed *Mikania micrantha* (Asteraceae) Suggests Highways as Corridors for its Dispersal in Southern China,” by **Shi-Lei Geng**, **Quan Chen**, **Wen-Li Cai**, **Ao-Cheng Cao**, and **Can-Bin Ou-Yang**, *Annals of Botany* 119:3 (2017), pp. 457-464.

“Genomic Constitution and Taxonomy of the Chinese Hexaploids *Elymus cylindricus* and *E. breviaristatus* (Poaceae: Triticeae),” by **Cai-Rong Yang**, **Bernard-R. Baum**, **Wei-Huan Chen**, **Hai-Qin Zhang**, **Xiao-Yan Liu**, **Xing Fan**, **Li-Na Sha**, **Hou-Yang Kang**, **Yi Wang**, and **Yong-Hong Zhou**, *Botanical Journal of the Linnean Society* 182:3 (2016), 650-657.

“Grain Production Versus Resource and Environmental Costs: Towards Increasing Sustainability of Nutrient Use in China,” by **Xiaoqiang Jiao**, **Yang Lyu**, **Xiaobin Wu**, **Haigang Li**, **Lingyun Cheng**, **Chaochun Zhang**, **Lixing Yuan**, **Rongfeng Jiang**, **Baiwen Jiang**, **Zed Rengel**, **Fusuo Zhang**, **William J. Davies**, and **Jianbo Shen**, *Journal of Experimental Botany* 67:17 (2016), 4935-4949.

“Gumleaf Skeletoniser *Uraba lugens* (Lepidoptera: Nolidae) Larval Outbreaks occur in High Rainfall Western Australian Jarrah (*Eucalyptus marginata*) Forest after Drought,” by **Allan J. Willis** and **Janet D. Farr**, *Austral Entomology* (2016), available online at <http://onlinelibrary.wiley.com>.

“Host-Plants of Leaf-Miners in Australian Subtropical Rainforest,” by **Sarah C. Maunsell**, **Chris J. Burwell**, **Rebecca J. Morris**, **William J.F. McDonald**, **Edward E. Edwards**, **Rolf G. Oberprieter**, and **Roger L. Kitching**, *Austral Entomology* (2016), available online at <http://onlinelibrary.wiley.com>.

“Intercontinental Comparison of Liana Community Assemblages in Tropical Forests of Ghana and Malaysia,” by **Patrick Addo-Fordjour**, **Zakaria B. Rahmad**, and **Robyn J. Burnham**, *Journal of Plant Ecology* (2016), available online at <http://jpe.oxfordjournals.org>.

“Lighting ‘Paradise’: A Sociopolitical History of Electrification in Bali,”

by **Anto Mohsin**, *East Asian Science, Technology and Society: An International Journal, Special Issue: The Archipelago Observed: Knowledge and Transformation in Indonesia*, **Saulfikar Amir**, ed. 11:1 (2017), 9-34.

“A Low-Altitude Mountain Range as an Important Refugium for Two Narrow Endemics in the Southwest Australian Floristic Region Biodiversity Hotspot,” by **Gunnar Keppel, Todd P. Robinson, Grant W. Wardell-Johnson, Colin J. Yates, Kimberly P. Van Niel, Margaret Byrne, and Antonius G.T. Schut**, *Annals of Botany* 119:2 (2017), pp. 289-300.

“Molecular Phylogeny, Biogeography and Ecological Niche Modelling of *Cardiocrinum* (Liliaceae): Insights into the Evolutionary History of Endemic Genera Distributed Across the Sino-Japanese Floristic Region,” by **Li-Qin Yang, Hao-Yu Hu, Chuan Xie, Chan-Pan Lai, Mei Yang, Xing-Jin He, and Song-Dong Zhou**, *Annals of Botany* 119:1 (2017), 59-72.

“*Nanopalpus*, Replacement Name for the Korean Nuuanuids Amphipod Genus *Parvipalpus* Jung and Yoon, 2016 (Crustacea: Amphipoda: Nuuanuidae), Preoccupied by *Parvipalpus* Mayer, 1890 (Crustacea: Amphipoda: Caprellidae),” by **Tae Won Jung and Seong Myeong Yoon**, *Journal of Natural History* 50:47-48 (2016), 3029-3030.

“Navigating Veterinary Borderlands: ‘Heiferlumps,’ Epidemiological Boundaries and the Control of Animal Disease in New Zealand,” by **Gareth Enticott**, *Transactions of the Institute of British Geographers* (2016), available online at <http://onlinelibrary.wiley.com>.

“A New Genus and Two New Species of Argeiinae (Crustacea: Isopoda: Bopyridae) from the Indo-West Pacific,” by **Jianmei An, Pengchi Zhang, and Gustav Paulay**, *Journal of Natural History* 51:7-8 (2017), pp. 405-420.

“New SHRIMP Age of Microstructures from a Deformed A-Type Granite, Kanigiri, Southern India: Constraining the Hiatus between Orogenic Closure and Postorogenic Rifting,” by **Arnab Sain, Dilip Saha, Sojen Joy, Hielke Jelsma, and Richard Armstrong**, *The Journal of Geology* 125:2 (2017), 241-259.

“New Species of *Acizzia* Heslop-Harrison (Hemiptera: Psyllidae) from Loranthaceae in Australia and New Guinea,” by **Gary S. Taylor**, *Austral Entomology* (2016), available online at <http://onlinelibrary.wiley.com>.

“A New Species of *Hydrellia* (Diptera: Ephydriidae) Mining *Hydrilla Verticillata* (Hydrocharitaceae) Leaves in Singapore,” by **Angela Bownes and John Deeming**, *Austral Entomology* 55:4 (2016), 353-359.

“*Pactola kuscheli* sp. Nov. (Coleoptera: Curculionidae), a Potential Cause for the Decline of the Threatened New Caledonian Conifer, *Agathis montana* de Laubenfels, 1969 (Araucariaceae),” by **Milosz A. Mazur, Francois Tron, and Christian Mille**, *Austral Entomology* (2016), available online at <http://onlinelibrary.wiley.com>.

“Passive Warming Reduces Stress and Shifts Reproductive Effort in in the Antarctic Moss, *Polytrichastrum alpinum*,” by **Erin E. Shortlidge, Sarah M. Eppley, Hans Kohler, Todd N. Rosenstiel, Gustavo E. Zuniga, and Angelica Casanova-Katny**, *Annals of Botany* 119:1 (2017), 27-38.

“Pigeon Pea Refuge Crops are Likely to Provide Patchy Delivery of *Helicoverpa* (Lepidoptera: Noctuidae) with Bt Cotton Production in Regions in Eastern Australia,” by **Geoff H. Baker, Hazel Parry and Colin R. Tann**, *Austral Entomology* 55:4 (2016), 439-448.

“Potential Impacts of *Tuberolachnus salignus* (giant willow aphid) in New Zealand and Options for Control,” by **Stephanie L. Sopow, Trevor Jones, Ian McIvor, John A. MacLean, and Stephen M. Pawson**, *Agricultural and Forest Entomology* (2017), available online at <http://onlinelibrary.wiley.com>.

“Radiating Despite a Lack of Character: Ecological Divergence among Closely Related, Morphologically Similar Honeyeaters (Aves: Meliphagidae) Co-Occurring in Arid Australian Environments,” by **Eliot T. Miller, Sarah K. Wagner, Luke J. Harmon, and Robert E. Ricklefs**, *The American Naturalist* (2017) 198:2, E14-E30.

“Reinvestigation on Species Richness and Environmental Correlates of Bryophytes at a Regional Scale in China,” by **Hong Qian and Shengbin Chen**, *Journal of Plant Ecology* 9:6 (2016), 734-741.

“Responses of Fruit Flies (Diptera: Tephritidae) to New Attractants in Papua New Guinea,” by **Jane E. Royer, Sharon Agovaua, John Bokosou, Kiteni Kurika, Amanda Mararuai, David G. Mayer, and Benjamin Niangu**, *Austral Entomology* (2017), available online at <http://onlinelibrary.wiley.com>.

“Review of Lithospheric Destruction in the North China, North Atlantic, and Tanzanian Cratons,” by **Zhensheng Wang, Timothy M. Kusky, Jianmin Fu, Yuefeng Yuan, and Peimin Zhu**, *The Journal of Geology* 124:6 (2016), 699-721.

“Review of the Seven New Species of Isometopinae (Heteroptera: Miridae) in Australia and Discussion of Distribution and Host Plant Associations of the Subfamily on a Worldwide Basis,” by **Anna A Namyatova and Gerasimos Cassis**, *Austral Entomology* 55:4 (2016), 392-422.



“Rocky-Intertidal Cheilostome Bryozoans from the Vicinity of the Sesoko Biological Station, West-Central Okinawa, Japan,” by **Matthew H. Dick** and **Andrei V. Grischenko**, *Journal of Natural History* 51:3-4 (2017), 141-266.

“Roles of Family and Architecture in Driving Insect Community Structure: A Comparison of Nine Australian Plant Species,” by **Sabine S. Nooten** and **Lesley Hughes**, *Austral Entomology* 55:4 (2016), 423-432.

“*Sarcophaga maxima* sp. nov. (Diptera: Sarcophagidae: Sarcophaginae), a New Australian Flesh Fly Recognised by Morphology and DNA Barcoding,” by **Keely A. Meiklejohn**, **James F. Wallman**, and **Thomas Pape**, *Austral Entomology*, available online at <http://onlinelibrary.wiley.com>.

“Sedimentary Environment of Ediacaran Sequences of South China: Trace Elements and Sr-Nd Isotope Constraints,” by **Rong Hu**, **Wei Wang**, **Shuang-Qing Li**, **Yi-Zeng Yang**, and **Fukun Chen**, *The Journal of Geology* 124:6 (2016), 769-789.

“Soil Respiration and its Partitioning in Different Components in Tropical Primary and Secondary Mountain Rain Forests in Hainan Island, China,” by **Lai Jiang**, **Suhui Ma**, **Zhang Zhou**, **Tianli Zheng**, **Xingxing Jiang**, **Qiong Cai**, **Peng Li**, **Jianxiao Zhu**, **Yide Li**, and **Jingyun Fang**, *Journal of Plant Ecology* (2016), available online at <http://jpe.oxfordjournals.org>.

“The Spectacular Fossils of the ‘Water Margin’: The Cambrian Biota of Chengjiang, Yunnan, China,” by **Mark Williams**, **David J. Siveter**, **Sara E. Gabbott**, **Xiaoya Ma**, **Mark A. Purnell**, and **Peiyun Cong**, *Geology Today* 32:6 (2016), 233-237.

“Stand Structure and Productivity of *Populus euphratica* Along a Gradient of Groundwater Distances at the Tarim River (NW China),” by **Frank M. Thomas**, **Michael Jeschke**, **Ximing Zhang**, and **Petra Lang**, *Journal of Plant Ecology* (2016), available online at <http://jpe.oxfordjournals.org>.

“A Stilbene Synthase Allele from a Chinese Wild Grapevine Confers Resistance to Powdery Mildew by Recruiting Salicylic Acid Signalling for Efficient Defence,” by **Yuntong Jiao**, **Weirong Xu**, **Dong Duan**, **Yuejin Wang**, and **Peter Nick**, *Journal of Experimental Botany* 67:19 (2016), 5841-5856.

“Stress Responses to Heat Exposure in Three Species of Australian Desert Birds,” by **Shangzhe Xie**, **L. Michael Romero**, **Zaw Win Htut**, and **Todd J. McWhorter**, *Physiological and Biochemical Zoology* (2017), available online at <http://journals.uchicago.edu>.

“*Synchiropus novaehiberniensis*, a New Species of Dragonet from New Ireland, Papua New Guinea, Western Pacific Ocean, with a Review of Subgenus *Synchiropus* (*Neosynchiropus*) and Description of a New Subgenus (Geleostei: Callionymidae),” by **Ronald Fricke**, *Journal of Natural History* 50:47-48 (2016), 3003-3028.

“A Test of BIOME-BGC with Dendrochronology for Forests Along the Altitudinal Gradient of Mt. Changbai in Northeast China,” by **Yulian Wu, Xiangping Wang, Shuai Ouyang, Kai Xu, Bradford A. Hawkins, and Osbert Jianxin Sun**, *Journal of Plant Ecology* (2016), available online at <http://jpe.oxfordjournals.org>.

“Three New Species of the Subgenus *Ashima* (Diptera: Drosophilidae: *Phortica*) from South-Western China, with DNA Barcoding Information,” by **Lin Zhu, Ting Qin, and Hongwei Chen**, *Journal of Natural History* 51:1-2 (2017), 71-82.

“Toothbrush’ Plant Bugs and Allies: *Protemiris* gen. nov., a New Genus and Five New Species of Proteaceae-Associated Australian Phylinae (Hemiptera: Miridae),” by **Kaleigh Russell and Christiane Weirauch**, *Austral Entomology* 56:1 (2017), pp. 75-93.

“Two New Earthworms of the Genus *Amyntas* Kinberg, 1867 (Clitellata: Megascolecidae) from Mt. Jiri, Korea,” by **Yong Hong**, *Journal of Natural History* 51:7-8 (2017), pp. 435-442.

“A Volcano under China’s Great Wall,” by **Roger Mason**, *Geology Today* 32:6 (2016), 219-221.

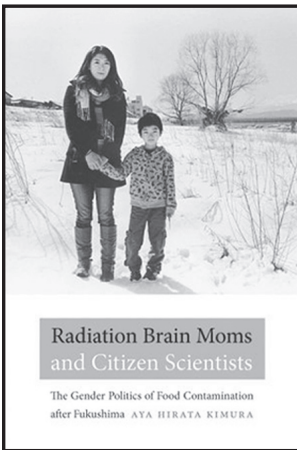
“Where Have All the Spiders Gone? The Decline of a Poorly Known Invertebrate Fauna in the Agricultural and Arid Zones of Southern Australia,” by **Michael G. Rix, Joel A Huey, Barbara Y. Main, Julianne M. Waldock, Sophie E. Harrison, Sarah Comer, Andrew D. Austin, and Mark S. Harvey**, *Austral Entomology* 56:1 (2017), 14-22.



---

**BOOK REVIEWS**


---



Aya Hirata Kimura, *Radiation Brain Moms and Citizen Scientists: The Gender Politics of Food Contamination after Fukushima*, Durham, NC: Duke University Press, 2016, Pp. xiv + 210. Index. Maps. Figure. Sources. Paper US\$23.95 and 978-0-8223-6199-2 and 9780822361992 and Cloth 9780822361824. Also available as an e-Book with ISBN 9780822373964.

The cover of *Radiation Brain Moms and Citizen Scientists* is a black and white photograph of a mother with her son, standing together in the snow, holding each other's hands, looking directly

into the camera. Every time the reader opens and closes the book, parent and child are there, framed in white, staring. The image both aligns and contrasts with Aya Hirata Kimura's analysis of the situation parents across Japan found themselves in following the Fukushima disaster, March 11, 2011. Kimura studies how social forces intended to protect citizens can act against their personal interests, silence their voices, expunge their concerns, and leave them in the literal and metaphorical cold. Where the image and Kimura differ is in what this means about how we should conceive of citizens.

The cover presents an unmoving pair. We do not know from where they came. We do not know where they are going. We just know that for the moment they are static. Kimura's citizens are, conversely, active. They conduct their own scientific analyses. They contest official discourse. They make efforts, as consumers, and members of communities, to safeguard their children and to escape from government policies that do not align with their own perceptions. Kimura's citizens are neither heroes resisting power nor conformists seeking only to insulate themselves. They are regular people trying to do what is best for their families and their communities. In this way Kimura carves out room for hope. Yet the cover and many of Kimura's conclusions contain little hope. They smack of being trapped among various absolutisms, of rootlessness, powerlessness and, at worst, of victimhood. Kimura's work is therefore one that wishes to demonstrate the feasibility for successful citizen activism in Japan, and across the world, but her case studies show that the capacities for change are limited, and superficial at best.

Kimura contends that neo-liberalism, scientism and gender politics intersected to silence citizens, especially mothers. She argues it is the mutually constitutive nature of these social forces that produces silence. First, there is neo-liberalism's contradictory nature, in which individualism and limited government are valued while restrictions are placed on individuals for the sake of security and social order. Scientism, in turn, constrains the range of publicly acceptable decisions to what is scientifically justified without regard for socio-cultural concerns, often deemed illegitimate. Scientism and gender politics embrace a post-feminist view that declares gender equality, without acknowledging that women are underrepresented within the scientific community, nor battling the stereotypes of women as both emotional and weak in techno-scientific matters. Then there are the gender politics of neo-liberalism, in which care demands – manage the domestic sphere, bear and raise children, care for the sick, disabled and old – are feminized without empowering women as experts. Instead, women are made to defer to outside, and usually male, authorities who do not acknowledge ongoing, systemic sources of oppression nor the need for continued activism towards greater gender equality. The result is that women are discouraged from and unengaged with politics.

Kimura explores this dynamic through five inter-related case studies, each forming their own chapter, derived from interviews conducted from 2011-2014. These include accusations of fear-mongering, the construction of the ideal citizen, the school lunch program, Citizen Radiation-Measuring Organizations (CRMOs), and the enduring legacies of citizen-scientists. In each, there is a double movement through which ideal citizens are constructed and then, in their efforts to gain control over information and discourse, either adhere to the norms of government and science and are constrained, or deviate from them to be labeled hysterical and/or irrational. Here Kimura makes an effort to carve out a third path, in which citizens used the language and norms of government and science to issue subtle but still implicitly political critiques. However, this is not entirely successful, given how her informants insisted on remaining apolitical, did not create a national network for testing and/or information sharing, nor participated in nor caused visible manifestations of protest. If her informants issued political critiques it is only through scholarly examination that they become visible.

The case study that best reflects this tendency regards the school food program considered in Chapter 3. Japan's is distinct in that it compels students to consume school lunches. Students thereby receive the same set meal, with neither a cafeteria-style set-up or packed lunch option. Because meals are also a component of public education, comprising lessons on nutrition and culture, in 2006 regulations were passed to ensure that at least 30% of ingredients were locally produced by 2010. After Fukushima, the school lunch program intensified issues pertaining to the Japanese food supply at large by requiring schools to locally source ingredients that may be contaminated and then compelling students to eat them. To get an exemption

for one's children put mothers in the position of having to dispute national and local government claims, as well as assurances from the scientific community, school authorities and parent-teacher associations.

Yet because of its symbolic role in agriculture, the school lunch program was also a site for farmer cooperatives to demonstrate the safety of their products. Kimura writes, the school lunch program therefore set concerned mothers against local and national institutions in social and economic spheres. But it also centered the food crisis within the maternal realm, by placing the question of food safety solidly within the domestic sphere, as defined by neo-liberalism. When mothers successfully articulated their concerns in terms of science and maternal devotion they gained at least some concessions. Even then, the school lunch program was never suspended at the national level and exceptions remained limited. In the end, only the students of those parents who advocated were freed from socio-cultural constraints that were not and have not been modified.

As this case study indicates, citizens had limited ability to impact decision-making within and among the institutions that controlled, mandated and policed food consumption. What Kimura makes clear, however, is that they could have an impact in making the invisible visible. This was the intention behind the CRMOS, which sought to verify and supplement radiation analysis provided by the state. Yet one of the results of this effort was that citizen-scientists sometimes contradicted official data and its assurances. Once more, Kimura reveals a hope that through contradiction there is the capacity for institutional and structural impact. But in Japan this was not the case.

Citizen-scientist-consumers did not weaponize their findings to chisel away at state and scientific edifices. At best, they used this information to protect themselves. In the meantime, Kimura writes, the conjunction of neo-liberalism, scientism and gender politics succeeded in making something that had been visible invisible. In centering dialogue over food safety on the dangerous women/citizens who challenged consensus, it was not Tokyo Electric Power (TEPCO), the corporation that owned and operated the power-plant, nor the government that shielded it, who bore responsibility for the economic and social damage unleashed in the aftermath of the meltdown; it was those citizens who failed to uphold their obligation as ideal citizens, to eat, without question, to consume, without question, to believe, without question. According to official discourse, it was they who were responsible for the economic suffering caused by consumer panic.

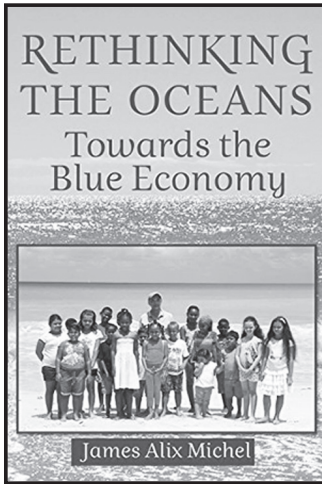
Once more within Kimura's analysis there is a double movement and once more it leaves citizens further constrained. In this instance, citizen-scientists worked to make the invisible visible while the state sought to make the visible invisible. They did not balance each other out. As a result, Kimura's study identifies how the lack of or erosion of civil society is integral to neo-liberal, scientific and gender-based domination. It is because criticism of the criticizer effectively curtailed questioning of

government and science-based decision-making that citizen-scientists were neutered in Japan. The lack of public sphere, particularly for women, made the realization of gendered, family-oriented responsibilities difficult because it set women and socio-cultural concerns up as scientifically illegitimate, oppositional to the socio-economic order, and dangerous.

Kimura shows that citizen-scientists and their measuring organizations had the opportunity to challenge this order by disassociating both science from politics and politics from citizens. They did neither. In Kimura's estimation, they did not wish to risk being deemed oppositional to the post-disaster virtues of charity, volunteerism and unity. Kimura tries to salvage this somewhat, by making an argument for why their enduring legacies still matter, but her efforts are diluted by the realities of post-Fukushima Japan presented within the work itself. "The government prioritized the economy over the life of its citizens, refusing to protect their health and wellness even as it simultaneously demanded the people bond in national unity to face the unprecedented national challenge" (p. 147).

In this way, like the cover of her book which boldly frames mother and child in a contrast of black and white, Kimura finally illuminates the moral content of her subject. She has revealed that in Japan neo-liberalism, scientism and gender converged to quiet parental concerns leaving some citizens unable to trust the claims of authorities. Parents, particularly mothers, risked their reputation and the credulity of their communities to protect their children. But whether their efforts succeeded, or amounted to any change in culture, is as unclear as what the two on the cover are waiting for. And in that, the text remains as equally haunting as their stares. Kimura reveals how forces that should be safeguarding citizens can act against their personal interests, silence their voices, and expunge their concerns and fears. She has further shown that in cultural and institutional frameworks, such as Japan's, citizens cannot negotiate without conforming to the rhetorical expectations of government and science.

While this may create a pathway for citizen-led movements around the world to attain some qualified victories, it is a troubling conclusion that reveals the limits of the public sphere, and the diminished capacities of citizens under states so thoroughly conjoined with science as a legitimating power. Kimura has shown us that one of the few ways to navigate government and public condemnation is to conform to the language, symbols, and expectations of institutions so that we can be taken seriously within the confines of their discourse. It is not clear whether that leads to anything more than feeling like one has power despite having been rendered mute and invisible.



James Alix Michel, *Rethinking the Oceans: Towards the Blue Economy*, Paragon House, 2016, Pp. xxii + 227. Cloth US\$24.95 ISBN 978-1-5578-925-9. Color Photos. Notes.

*Rethinking the Oceans* is first and foremost a political vision and statement by the president of the Republic of Seychelles, James Alix Michel. That said, it is a comprehensive vision and program that bravely tries to do to the oceans what the idea of a ‘green revolution’ has done to nature on land. The parallel between land (green) and ocean (blue) is clear and builds on the idea of the sustainable use of resources, this time in, on and under the water.

The book is structured in ten chapters of which the first two set the stage: we are all islanders. It is an optimistic view that Michel presents: we can use the oceans in ways that are both economic and sustainable as long as we use our imaginations and create new solutions to old problems and ideas. Not only does he argue that the ocean is a most important resource, but also as land becomes more and more scarce we all have to use the oceans in new and better ways. We are all islanders.

The next seven chapters are the core of the book and the start of answers to the plea for a “blue economy.” Each chapter deals with a way of using or utilizing the oceans in a sustainable way. The seven chapters relate to seven challenges that have often been studied separately but Michel tries to discuss them all under the heading of “blue economy” and tries to come to grips with the challenges that sustainable growth rises for all seven. Fish, transport, tourism, resources at the sea bottom, energy, pollution, and biodiversity are the seven topics.

Michel starts head on with one area which for so many years has been plagued with not very sustainable solutions: fishing and harvesting the oceans. He points to the fact that seafood is the fastest growing food commodity that is traded globally. His solution to how to obtain sustainable fishery is to make marine reserves and, of course, stronger regulations and surveying both in the EEZs and in international waters.

Shipping also needs greening and particularly the interface between maritime transport and the land merits attention by Michel: The harbors and coasts,



shipbuilding and marinas are important issues as are the challenges of piracy and how to deal with it.

The third area important to the blue economy is the way that people are drawn to the seaside, on to the sea and even under the sea. Tourism needs greening in the sense that ecotourism has to be developed from a niche to a way of travel and an experience of the sea that might reduce the traditional mass tourism to the sea side. How this should be done is less clear, but Michel gives examples like conservation projects, agro tourism and educational tourism as possible ways to remedy the environmental consequences of mass tourism.

Subsea resources are developing quickly be it oil and gas or more exotic products of deep sea mining. The challenges of offshore oil and gas have been more than explicit through the Deepwater Horizon accident. The only answer is stricter regulation and more international control. On the doorstep of actually doing deep sea mining the International Seabed Authority must enforce even stricter demands on the companies that will be allowed to mine.

Apart from the by now more conventional wind and sun power there is enormous energy in the waves, currents and tides of the sea. A blue economy must harness this energy together with wind at the seas. A lot of promising attempts have been made and more will come. However, it is also a price problem as long as nuclear and fossil fuel sources seemingly are less expensive, at least in most markets. Alternative energy from the sea needs political leadership.

Recovering the oceans from all sorts of pollution is another agenda as humans through the centuries have used the ocean as a great waste dump. Today plastic might be the most visible problem, both in the disturbing plastic seas but also as micro plastic in birds and fish. Chemical and radioactive waste are other threats that must be dealt with. The cleaning of the oceans is a large project and the first thing to do is to stop further pollution.

Finally, the seventh and largest area to be covered by the book is biodiversity and how to on the one hand take care of it and preserve it, and on the other use it for the purpose of the common good through bioprospecting and innovation through newly discovered biological substances.

The strength of Michel's book is its attempt to make a policy for the oceans that involves all parts of it, and the possibility for a more or less comprehensive view of the ocean in its totality. As an islander himself we should not be surprised by such an attempt by Michel to establish the idea of a "Blue Economy" as a parallel to the green economy on land. It might not be a big problem, then, that for each of the seven areas the book covers there is much more to be said and discussed about solutions and possibilities – and much more has been said, of course.



However, as a policy statement to elevate our perspective and show us how the different possibilities and problems of the oceans are connected the book is highly recommendable.

Håkon With Andersen  
Norwegian University of Science and Technology

---



---

## SUBSCRIPTION and STAFF INFORMATION

---

*The Bulletin of the Pacific Circle* is the communication medium of the Pacific Circle, organized in 1985 to promote and assist scholarship in the practice, history and social studies of Pacific science. The Circle is a commission of the International Union of the History and Philosophy of Science.

*The Bulletin* is distributed twice a year with the assistance of the Department of History, University of Hawai'i, Manoa.

Membership in the Circle, which includes *The Bulletin*, is available at a cost of US\$25 per year for individuals and US\$35 for institutions. Additional contributions in any amount to support the costs of production and distribution will be gratefully accepted and can be made online. Subscriptions cannot be processed online.

Checks or money orders should be made payable to "The University of Hawaii Foundation" (please note "Pacific Circle" on the memo line) and sent to the Editor:

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

Phone: (808) 956-7675

Fax: (808) 956-9600

Email: peterh@hawaii.edu

Web Site: <http://thepacificcircle.com>

Credit card charges (VISA and Mastercard only) can also be accepted. Please supply the following information to the Editor:

Your Name (as it appears on the card)

Account Number

Card Type (VISA or Mastercard)

Expiration Date

Amount to be Charged in US\$'s

Please note: For overseas accounts, please include the **security code number** on the back of the card. The University of Hawai'i Foundation requires that to process overseas charges. This and all other financial information is confidential and treated accordingly.

**Bulletin Staff**

Editor: Peter H. Hoffenberg  
Editorial Assistant: Michael P. Kline

**Pacific Circle Officers**

President: John Gascoigne  
Vice-Presidents: Zuoyue Wang and Roy MacLeod  
Secretary/Treasurer: Peter H. Hoffenberg  
Council Members: Antony Adler  
Warwick H. Anderson  
Anthony Ballantyne  
Jianjun Mei  
Buhm Soon Park  
Miao Tian  
Christine Winter

Ex-Officio Council Members: Jacob Hamblin  
Michael Osborne



