

DR. CHONG CHEN, *D.PHIL. (OXON.)*

DATE OF BIRTH: April 3, 1990.

NATIONALITY: Hong Kong SAR

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ADDRESS

Department of Subsurface Geobiological Analysis and Research (D-SUGAR)

Japan Agency for Marine-Earth Science and Technology (JAMSTEC)

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EMPLOYMENT

International Postdoctoral Fellow May 2015 ~ Present

Japan Agency for Marine-Earth Science and Technology (JAMSTEC)

Yokosuka Headquarters

Department of Subsurface Geobiological Analysis and Research

Visiting Research Associate Sept 2014 ~ Present

Queen's University Belfast, Northern Ireland, United Kingdom

School of Biological Sciences & Queen's University Marine Laboratory

Part-time Lecturer

Sophia University, Tokyo, Japan

April 2017 ~ Present

Faculty of Science and Technology

Research Associate July 2015 ~ July 2016

University of Oxford, England, United Kingdom

Department of Zoology, Ocean Research & Conservation

OTHER AFFILIATIONS

Affiliate Oct 2016 ~ Present

Lawrence Berkeley National Laboratory, California, United States of America

Advanced Light Source

EDUCATION

Doctor of Philosophy in Zoology (Oxon.)

Completed March 2015, Graduated June 2015

University of Oxford (Merton College) 2011 ~ 2015
British Antarctic Survey, Cambridge 2013 ~ 2015

DPhil Thesis: “Systematics, ecology, and evolution of hydrothermal vent endemic peltospirids (Mollusca: Gastropoda) from the Indian and Southern oceans”

Main supervisor: Prof. Alex D. Rogers (University of Oxford)

Co-supervisors: Dr. Jonathan T. Copley (University of Southampton)

Dr. Katrin Linse (British Antarctic Survey, Cambridge)

Dr. Julia D. Sigwart (Queen’s University Belfast)

Bachelor of Arts (Hons.) in Biological Sciences (Oxon.) Graduated July 2011

University of Oxford (St Anne’s College) 2008 ~ 2011

Major in Animal Biology and Environmental Biology

Minor in Plant and Microbial Biology

Bachelor Thesis: “The effect of water pollution on community structure and size distribution of rocky shore organisms in Hong Kong”

Main supervisor: Prof. Martin R. Speight (University of Oxford)

Co-supervisors: Prof. Gray A. Williams (University of Hong Kong)

Prof. Kenneth M.Y. Leung (University of Hong Kong)

PUBLICATION LIST

Watsuji T*, Tsubaki R, **Chen C**, Nagai Y, Nakagawa S, Yamamoto M, Nishiura D, Toyofuku T, Takai K (*In press*). Cultivation mutualism between a deep-sea vent galatheid crab and chemosynthetic epibionts. *Deep-Sea Research Part I: Oceanographic Research Papers*.

Sigwart JD*, **Chen C** (2017). Brooding behaviour explains patchy distribution in a shallow-water invertebrate (Mollusca: Polyplacophora: Lepidopleurida). *Marine Biodiversity*, First Online, DOI: 10.1007/s12526-017-0688-1

Zhang Y [Yanjie], Sun J, **Chen C**, Watanabe HK, Feng D, Zhang Y [Yu], Chiu JMY, Qian P-Y*, Qiu J-W* (2017). Adaptation and evolution of polynoid scale-worms (Annelida: Polynoidae): insights from transcriptome comparison among two deep-sea and a shallow-water species. *Scientific Reports*, 7: 46205. DOI: 10.1038/srep46205

Sigwart JD*, **Chen C**, Marsh L (2017). Is mining the seabed bad for mollusks? *The Nautilus* 131(1): 43-50.

Chen C*, Uematsu K, Linse K, Sigwart JD (2017). By more ways than one: Rapid convergence in adaptations to hydrothermal vents shown by 3D anatomical reconstruction of *Gigantopelta* (Mollusca: Neomphalina). *BMC Evolutionary Biology*, 17:62. DOI: 10.1186/s12862-017-0917-z

Chen C*, Watanabe HK, Ohara Y (2016). A very deep *Provanna* (Gastropoda: Aabysochrysoidea) discovered from the Shinkai Seep Field, Southern Mariana Forearc. *Journal of the Marine*

Biological Association of the United Kingdom. DOI: 10.1017/S0025315416001648

- Okumura T*, Ohara Y, Stern RJ, Yamanaka T, Onishi Y, Watanabe H, **Chen C**, Bloomer SH, Pujana I, Sakai S, Ishii T, Takai K (2016). Brucite chimney formation and carbonate alteration at the Shinkai Seep Field, a serpentinite-hosted vent system in the Southern Mariana Forearc. *Geochemistry, Geophysics, Geosystems*, **17**(9): 3775-3796. DOI: 10.1002/2016GC006449
- Chen C***, Ogura T, Hirayama H, Watanabe HK, Miyazki J, Okutani T (2016). First seep-dwelling *Desbruyeresia* (Gastropoda: Aabysochrysoidea) species discovered from a serpentinite-hosted seep in the southeastern Mariana Forearc. *Molluscan Research*, **36**(4): 277-284. DOI: 10.1080/13235818.2016.1172547
- Chen C***, Linse K, Roterman CN, Copley JT, Rogers AD (2015). A new genus of large hydrothermal vent-endemic gastropod (Neomphalina: Peltospiridae). *Zoological Journal of the Linnean Society*, **175**(2): 319-335. DOI: 10.1111/zoj.12279
- Chen C***, Copley JT, Linse K, Rogers AD (2015). Low connectivity between 'scaly-foot gastropod' (Mollusca: Peltospiridae) populations at hydrothermal vents on the Southwest Indian Ridge and the Central Indian Ridge. *Organisms Diversity and Evolution*, **15**(4): 663-670. DOI: 10.1007/s13127-015-0224-8
- Chen C***, Copley JT, Linse K, Rogers AD, Sigwart J (2015). The heart of a dragon: 3D anatomical reconstruction of the 'scaly-foot gastropod' (Mollusca: Gastropoda: Neomphalina) reveals its extraordinary circulatory system. *Frontiers in Zoology*, **12**:13. DOI: 10.1186/s12983-015-0105-1
- Nakajima R*, Yamamoto H, Kawagucci S, Takaya Y, Nozaki T, **Chen C**, Fujikura K, Miwa T, Takai K (2015). Post-drilling changes in seabed landscape and megabenthos in a deep-sea hydrothermal system, the Iheya North field, Okinawa Trough. *PLoS ONE*, **10**(4), e0123095. DOI: 10.1371/journal.pone.0123095
- Chen C***, Linse K, Copley JT, Rogers AD (2015). The 'scaly-foot gastropod': a new genus and species of hydrothermal vent-endemic gastropod (Neomphalina: Peltospiridae) from the Indian Ocean. *Journal of Molluscan Studies*, **81**(3): 322-334. DOI: 10.1093/mollus/eyv013
- Nakamura M*, **Chen C**, Mitarai S (2015). Insights into life-history traits of *Munidopsis* spp. (Anomura: Munidopsidae) from hydrothermal vent fields in the Okinawa Trough, in comparison with the existing data. *Deep-Sea Research Part I: Oceanographic Research Papers*, **100**: 48-53. DOI: 10.1016/j.dsr.2015.02.007
- Xu T, Sun J, **Chen C**, Qian P-Y, Qiu J-W* (2015). The mitochondrial genome of the deep-sea snail *Provanna* sp. (Gastropoda: Provannidae). *Mitochondrial DNA Part A*, **27**(6): 4026-4027. DOI: 10.3109/19401736.2014.1003827
- Chen C***, Copley JT, Linse K, Rogers AD, Sigwart J (2015). How the mollusc got its scales:

convergent evolution of the molluscan scleritome. *Biological Journal of the Linnean Society*, **114**: 949-954. DOI: 10.1111/bij.12462

Houart R*, Moe CO, **Chen C** (2015). Description of two new species of *Chicomurex* from the Philippine Islands (Gastropoda: Muricidae) with update of the Philippines species and rehabilitation of *Chicomurex gloriosus* (Shikama, 1977). *Venus: the Japanese Journal of Malacology*, **73**(1-2): 1-14. DOI: 10.18941/venus.73.1-2_1

Chen C* (2014). Molluscs found in hydrothermal vents of Okinawa Trough: extreme species living in a poisonous paradise. *The Festivus*, **45**(3): 75-81.

Houart R*, Moe CO, **Chen C** (2014). *Chicourex lani* sp. nov. (Gastropoda: Muricidae), a new species and its intricate history. *Bulletin of Malacology, Taiwan*, **37**: 1-14.

* = Corresponding Author

PAPERS IN REVISION / SUBMITTED

Chen C*, Chan T-Y, Chan BKK (*Submitted*). Molluscan diversity in shallow water hydrothermal vents off Kueishan Island, Taiwan. *Marine Biodiversity*.

Miyazaki J, Makabe A, Matsui Y, Ebina N, Tsutsumi S, Ishibashi J, **Chen C**, Kaneko S, Takai K, Kawagucci S* (*Submitted*). WHATS-3: An improved flow-through gas-tight fluid sampler for deep-sea geofluid research. *Frontiers in Earth Science*.

Chen C*, Okutani T, Qiu J-W (*Submitted*). The first new species of vesicomylid clam, *Calypptogena marissinica* n. sp., from the South China Sea. *Venus*.

Heywood J*, **Chen C**, Pearce DA, Linse K (*Submitted*). Bacterial communities associated with the Southern Ocean vent gastropod, *Gigantopelta chessoia*: indication of intergenerational, horizontal symbiont transfer. *Polar Biology*.

Nye V, Copley JT, **Chen C**, Linse K* (*In revision*). On the systematics and ecology of two new species of *Provanna* (Abyssochrysoidea: Provannidae) from deep-sea hydrothermal vents in the Caribbean Sea and Southern Ocean. *Journal of Molluscan Studies*.

* = Corresponding Author

RESEARCH EXPERIENCE

R/V KAIREI Cruise KR16-16	November 2016
Hydrothermal vents, Okinawa Trough w/ ROV <i>KAIKO Mk-IV</i>	
R/V KAIREI Cruise KR16-14	October 2016
Shinkai Seep Field (Mariana Trench), Serpentinite-hosted seep w/ ROV <i>KAIKO Mk-IV</i>	
R/V KAIMEI Cruise KM16-04	June ~ July 2016
Sagami Bay, Suruga Bay, Izu-Ogasawara w/ ROV <i>HYPER-DOLPHIN</i> , <i>KAIMEI ROV</i>	

<i>R/V KAIMEI Cruise KM16-01</i>	April 2016
Sagami Bay and Suruga Bay w/ <i>KAIMEI ROV</i>	
<i>R/V YOKOSUKA Cruise YK16-E02:</i>	February ~ March 2016
Central & Southwest Indian Ridge w/ DSV <i>SHINKAI 6500</i> (Dived 6K#1457)	
<i>R/V YOKOSUKA Cruise YK16-E01</i>	January 2016
Hydrothermal vents, Central Indian Ridge w/ AUV <i>URASHIMA</i>	
<i>R/V KAIREI Cruise KR15-17</i>	November 2015
Hydrothermal vents, Okinawa Trough, Japan w/ ROV <i>KAIKO Mk-IV</i>	
<i>R/V KAIREI Cruise 15-16</i>	October 2015
Hydrothermal vents, Okinawa Trough, Japan w/ ROV <i>KAIKO Mk-IV</i>	
<i>R/V NATSUSHIMA Cruise 15-13: Okinawa Trough</i>	July 2015
Hydrothermal vents, Okinawa Trough, Japan w/ ROV <i>HYPER-DOLPHIN</i>	
<i>R/V KAIYO Cruise KY14-02</i>	February 2014
Hydrothermal vents, Okinawa Trough, Japan w/ ROV <i>HYPER-DOLPHIN</i>	
<i>R/V KAIYO Cruise KY14-01</i>	January 2014
Hydrothermal vents, Okinawa Trough, Japan w/ ROV <i>HYPER-DOLPHIN</i>	
Mollusc Cataloguing, Oxford University Natural History Museum	March ~ September 2013
Supervising volunteers (approx. five / session) in updating, cataloguing, and database making of the mollusc dry collection in the museum. Runs every Monday, 10am ~ 4pm.	
<i>Supervisor: Dr Sammy De Grave, assistant curator, OUNHM.</i>	
<i>RRS James Cook Cruise 80</i>	December 2012 ~ January 2013
Hydrothermal vents, E2 & E9 Segments, East Scotia Ridge w/ ROV <i>Isis</i>	
<i>RRS James Cook Cruise 67</i>	November 2011
Hydrothermal vents, Longqi Vent Field, South West Indian Ridge w/ ROV <i>Kiel6000</i>	
<i>RRS James Cook Cruise 66</i>	November ~ December 2011
Seamounts, South West Indian Ridge w/ ROV <i>Kiel6000</i>	

ROLES IN LEARNED SOCIETIES

Malacological Society of London

Honorary Officer (Web Manager)	April 2015 ~ Present
Facebook Administrator	October 2014 ~ Present
Co-opted Council Member	October 2014 ~ April 2015
Member	2013 ~ Present

Deep-Sea Biology Society

Member	2015 ~ Present
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Malacological Society of Japan

Member	2015 ~ Present
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Unitas Malacologica

Member	2013 ~ Present
Conchological Society of Great Britain and Ireland	
Member	2012 ~ Present

AWARDS RECEIVED

Annual Award (Year 2015-2016)	April 2016
<i>For an exceptionally promising initial contribution to the study of molluscs</i>	
Presented by: <i>Malacological Society of London</i>	
The Best Oral Presentation Award	June 2015
<i>International Conference on Biodiversity, Ecology and Conservation of Marine Ecosystems 2015 (BECOME 2015), Hong Kong</i>	
Presented by: BECoME	
Best Poster Award	July 2013
<i>World Congress of Malacology Conference 2013, Azores, Portugal</i>	
Presented by: Unitas Malacologica Council	

CONFERENCES / SYMPOSIUMS

World Congress of Malacology 2016	July 2016
Penang, Malaysia	<i>20 minutes oral presentation</i>
The Malacological Society of Japan Annual Meeting 2016	April 2016
Toho University (Narashino Campus), Chiba, Japan	<i>Poster presentation</i>
The 2nd InterRidge International Workshop, Circum-Antarctic Ridges	October 2015
KOPRI, Incheon, Republic of Korea	<i>20 minutes oral presentation</i>
14th Deep-Sea Biology Symposium	September 2015
Aveiro, Portugal	<i>20 minutes oral presentation</i>
Systematics Association Biennial Conference 2015 (Oxford, United Kingdom)	August 2015
Oxford, United Kingdom	<i>Poster presentation</i>
1st International Conference on Biodiversity, Ecology and Conservation of Marine Ecosystems (BECOME) 2015	June 2015
Hong Kong SAR	<i>20 minutes oral presentation</i>
JAMSTEC International Workshop for Large-scale Research Cruises	November 2014
Yokohama, Japan	<i>Assistant for chair: Vent & Seep Systems Session</i>
World Conference on Marine Biodiversity	October 2014
Qingdao, China	<i>15 minutes oral presentation</i>
7th Congress of the European Malacological Societies	September 2014
Cambridge, United Kingdom	<i>15 minutes oral presentation</i>
JAMSTEC Blue Earth Symposium 2014	February 2014

Tokyo, Japan	<i>Short oral presentation in session BE14-11</i>
British Antarctic Survey Student Science Symposium	November 2013
Cambridge, United Kingdom	<i>30 minutes oral presentation</i>
World Congress of Malacology 2013	July 2013
Ponta Delgada, Azores, Portugal	<i>20 minutes oral presentation and poster presentation</i>
Ecology of Hydrothermal System Symposium	May 2013
AORI, University of Tokyo, Japan	<i>1 hour oral presentation</i>
NERC ChEsSO Consortium Meeting	March 2012
Cambridge, United Kingdom	<i>20 minutes oral presentation</i>

INVITED TALKS

Kannonzaki Nature Museum	March 2017
Yokosuka, Japan	<i>Public lecture</i>
Kanagawa Prefectural Museum of Natural History	February 2017
Yokosuka, Japan	<i>Public lecture</i>
University of California, Berkeley	October 2015
United States of America	<i>Invited by Dr. Julia D. Sigwart / Prof. David Lindberg</i>
Hong Kong University of Science and Technology	June 2015
Hong Kong SAR	<i>Invited by Prof Pei-Yuan Qian</i>
University of Hong Kong	December 2014
Hong Kong SAR	<i>Invited by Prof Kenneth Leung</i>
Hong Kong Baptist University	April 2014
Hong Kong SAR	<i>Invited by Prof Jianwen Qiu</i>
Japan Agency of Marine-Earth Science and Technology (BioGeos Seminar)	May 2013
Yokosuka, Japan	<i>Invited by Dr Hiromi Watanabe</i>

GRANTS RECEIVED

SPRING-8 Synchrotron Proposal (37553)	February, 2017
Spring-8, Hyogo Prefecture, Japan	Synchrotron tomography beamline
Advanced Light Source RAPIDD Proposal (RA-00172)	May, 2016
Laurence Berkeley National Laboratory	Synchrotron tomography beamline
International Postdoctoral Fellowship Research Fund	May, 2015
Japan Agency for Marine-Earth Science and Technology (JAMSTEC)	
Research Grant	December, 2014
The Conchological Society of Great Britain and Ireland	£992.02
Research Grant	March, 2014
Malacological Society of London	£1500.00

InterRidge Cruise Travel Bursary	December 2013
InterRidge	US\$2,000.00
Supplementary Travel Grant	December 2013
Merton College, University of Oxford	£300.00
Graduate Research Expenses Grant	December 2013
Merton College, University of Oxford	£300.00
Graduate Research Expenses Grant	June 2013
Merton College, University of Oxford	£285.00
Unitas Malacologica Travel Grant 2013	April 2013
Unitas Malacologica Council / World Congress of Malacology	€400.00
Research Teaching Support Grant	November 2012
Department of Zoology, University of Oxford	£1,200.00
Supplementary Travel Grant	November 2012
Merton College, University of Oxford	£300.00
Research Teaching Support Grant	April 2012
Department of Zoology, University of Oxford	£2,306.00
Supplementary Travel Grant	December 2011
Merton College, University of Oxford	£300.00
Vacation Laboratory Studentship	Summer 2010
St Anne's College, University of Oxford	£500.00
JCR Research & Travel Grant	Summer 2010
St Anne's College, University of Oxford	£250.00

CERTIFICATION / TRAINING

Personal Survival Techniques, Warsash Maritime Academy	October 2011
Completed a sea survival training course approved by the Maritime and Coastguard Agency, U.K.; meeting the requirements of STCW 95 Reg. VI/1, Section A-VI/1, Para. 2.1.1.	

RELEVANT WORK EXPERIENCE

Mollusc Cataloguing, Oxford University Natural History Museum	March ~September 2013
Supervising volunteers (approx. five / session) in updating, cataloguing, and database making of the mollusc dry collection in the museum. Runs every Monday, 10am ~ 4pm.	
<i>Supervisor: Dr Sammy De Grave, Head of Research, OUNHM.</i>	

RELEVANT SKILLS

Languages

Quadrilingual. Native speaker in Mandarin; fully fluent and literate in Japanese, English,

and Cantonese. Able to translate scholarly between these languages.

Computing Skills

Experiences in a wide-range of softwares ranging from MS Office to ArcGIS and quickly learns new ones. Very experienced with 2D graphic processing using Adobe Photoshop or Adobe Illustrator and with 3D modelling using specialist software AMIRA. Some experience in with languages such as HTML and JavaScript, was webmaster of the Ocean Research & Conservation, Oxford group website (<http://www.zoo.ox.ac.uk/group/oceans/>) from 2013 to 2015. Familiar with statistical analyses packages such as SPSS.

Working Overseas / At Sea

An experienced traveller. Able to cope with jetlag with ease, enjoy long-distance transport, and become accustomed to the new environment very quickly. Experienced no major sea-sickness during all expeditions so far, the longest ones lasting six weeks.

The Phylum Mollusca

With 17 years of experiences in morphological identification of molluscs, especially gastropods. Experienced photographer and continually produced high-quality images of specimens for identification and public interest (<http://squamiferum.net/kogkhulion/>). Administrator of the Facebook page of *the Malacological Society of London* (<http://www.facebook.com/malacsoc/>) and Facebook public interest group *Seashells Collectors* with more than 4,000 members (<http://www.facebook.com/groups/Sseashell/>).