

2023

気候システム研究 Climate System Research	45
海洋地球システム研究 Ocean-Earth System Science	47
海洋生命システム研究 Marine Life Science	52
国際・地域連携研究 International and Local Research Cooperation	57

研究業績 | PUBLICATION LIST 2023

気候システム研究 (Climate System Research)

- Burton, L.E., A.M. Haywood, J.C. Tindall, A.M. Dolan, D.J. Hill, A. Abe-Ouchi, W.-L. Chan, D. Chandan, R. Feng, S.J. Hunter, X. Li, W.R. Peltier, N. Tan, C. Stepanek, Z. Zhang (2023) On the climatic influence of CO₂ forcing in the Pliocene. *Climate of the Past*, 19, 747-764.
- Cauquoin, A., A. Abe-Ouchi, T. Obase, W.-L. Chan, A. Paul, M. Werner (2023) Effects of LGM sea surface temperature and sea ice extent on the isotope-temperature slope at polar ice core sites. *Climate of the Past*, 19, 1275-1294.
- Cramwinckel, M.J., Burls, N.J., Fahad, A.A., Knapp, S., West, C.K., Reichgelt, T., Greenwood, D.R., Chan, W.L., Donnadieu, Y., Hutchinson, D.K., de Boer, A.M., Ladant, J.B., Morozova, P.A., Niezgodzki, I., Knorr, G., Steinig, S., Zhang, Z.S., Zhu, J., Feng, R., Lunt, D.J., Abe-Ouchi, A., Inglis, G.N. (2023) Global and zonal-mean hydrological response to early Eocene warmth. *Paleoceanography and Paleoclimatology*, 38, doi: 10.1029/2022PA004542.
- Gogoi, M.M., S.S. Babu, R. Imasu, M. Hashimoto (2023) Satellite (GOSAT-2 CAI-2) retrieval and surface (ARFINET) observations of aerosol black carbon over India. *Atmospheric Chemistry and Physics*, 23, 8059-8079.
- Goudsmit-Harzevoort, B., A. Lansu, M.L.J. Baatsen, A.S. von der Heydt, N.J. de Winter, Y. Zhang, A. Abe-Ouchi, A. de Boer, W.-L. Chan, Y. Donnadieu, D.K. Hutchinson, G. Knorr, J.-B. Ladant, P. Morozova, I. Niezgodzki, S. Steinig, A. Tripathi, Z. Zhang, J. Zhu, M. Ziegler (2023) The relationship between the global mean deep-sea and surface temperature during the early Eocene. *Paleoceanography and Paleoclimatology*, 38, doi: 10.1029/2022PA004532.
- Guo, D., H. Wang, V.E. Romanovsky, A.M. Haywood, N. Pepin, U. Salzmann, J. Sun, Q. Yan, Z. Zhang, X. Li, B.L. Otto-Bliesner, R. Feng, G. Lohmann, C. Stepanek, A. Abe-Ouchi, W.-L. Chan, W.R. Peltier, D. Chandan, A.S. von der Heydt, C. Contoux, M.A. Chandler, N. Tan, Q. Zhang, S.J. Hunter, Y. Kamae (2023) Highly restricted near-surface permafrost extent during the mid-Pliocene warm period. *Proceedings of the National Academy of Sciences*, 120, doi: 10.1073/pnas.2301954120.
- Ha, K.-J., J. Kam, M. Watanabe, T. Zhou, W. Dong (2023) Grand challenges in earth science: The weather-climate-society nexus over Northeast Asia. *Bulletin of the American Meteorological Society*, 45, E1956-E1961.
- Hori, M.E., M. Yoshimori (2023) Assessment of the changing role of lower tropospheric temperature advection under arctic amplification using a large ensemble climate simulation dataset. *Climate Dynamics*, 61, 2355-2370.
- Hu, A.X., G.A. Meehl, A. Abe-Ouchi, W.Q. Han, B. Otto-Bliesner, F. He, T.W. Wu, N. Rosenbloom, W.G. Strand, J. Edwards (2023) Dichotomy between freshwater and heat flux effects on oceanic conveyor belt stability and global climate. *Communications Earth & Environment*, 4, doi: 10.1038/s43247-023-00916-0.
- Imasu, R., T. Matsunaga, M. Nakajima, Y. Yoshida, K. Shiomi, I. Morino, N. Saitoh, Y. Niwa, Y. Someya, Y. Oishi, M. Hashimoto, H. Noda, K. Hikosaka, O. Uchino, S. Maksyutov, H. Takagi, H. Ishida, T.Y. Nakajima, T. Nakajima, C. Shi (2023) Greenhouse gases observing satellite 2 (GOSAT-2): mission overview. *Progress in Earth Planetary Science*, 10, doi: 10.1186/s40645-023-00562-2.
- Ito, R., Y. Imada, H. Kawase (2023) Regional characteristics of attribution risk on the record-high-temperature event of 2022 rainy season in Japan. *Bulletin of the American Meteorological Society*, 104, E2121-E2126.
- Iwakiri, T., Y. Imada, Y. Takaya, T. Kataoka, H. Tatebe, M. Watanabe (2023) Triple-dip La Niña in 2020–23: North Pacific atmosphere drives 2nd year La Niña. *Geophysical Research Letters*, 50, doi: 10.1029/2023GL105763.
- Kelemen, F.D., S. Steinig, A. de Boer, J. Zhu, W.L. Chan, I. Niezgodzki, D.K. Hutchinson, G. Knorr, A. Abe-Ouchi, B. Ahrens (2023) Meridional Heat Transport in the DeepMIP Eocene Ensemble: Non-CO₂ and CO₂ Effects. *Paleoceanography and Paleoclimatology*, 38, doi: 10.1029/2022PA004607.
- Kikuchi, M., S.A. Braun, K. Suzuki, G. Liu, A. Battaglia (2023) Satellite precipitation measurement: What have we learnt about cloud-precipitation processes from space? In: *Clouds and their climate impacts: Radiation, Circulation, and Precipitation*, edited by S.C. Sullivan, C. Hoose, American Geophysical Union, doi: 10.1002/9781119700357.ch15.
- Kimura, N., T. Onomura, T. Kikuchi (2023) Processes governing seasonal and interannual change of the Antarctic sea-ice area. *Journal of Oceanography*, 79, 109-121.
- Komatsu, K., Y. Takaya, T. Toyoda, H. Hasumi (2023) A submonthly scale causal relation between snow cover and surface air temperature over the autumnal Eurasian continent. *Journal of Climate*, 36, 4863-4877.
- Kuga, M., K.I. Ohshima, N. Kimura, K. Nakata, Y. Fukamachi (2023) Particle-tracking experiments of coastal-origin sea ice that could induce high biological productivity in the Sea of Okhotsk. *Journal of Oceanography*, 79, 145-159.
- Masuda, Y., Y. Yamanaka, S.L. Smith, T. Hirata, H. Nakano, A. Oka, H. Sumata, M.N. Aita (2023) Acclimation by diverse phytoplankton species determines oceanic carbon to nitrogen ratios. *Limnology and Oceanography Letters*, 8, 519-528.
- Masunaga, R., T. Miyakawa, T. Kawasaki, H. Yashiro (2023) Flux adjustment on seasonal-scale sea surface temperature drift in NICOCO. *Journal of the Meteorological Society of Japan*, 101, 175-189.
- Nakajima, T., Takemura, T., Suzuki, K., Goto, D. (2023). Impacts of Air Pollutants on Climate Change: Importance of SLCP Control for Climate Change Mitigation in Short- and Long-Term Future. In: *Handbook of Air Quality and Climate Change*, edited by H. Akimoto, H. Tanimoto, Springer, Singapore. doi: 10.1007/978-981-15-2527-8_40-1
- Nakamura, Y., Y.N. Takayabu (2023) Convective couplings with equatorial Rossby waves and equatorial Kelvin waves: 3. Variations of clouds and their radiative effects. *Geophysical Research Letter*, 50, doi: 10.1029/2023GL105160.
- Obase, T., A. Abe-Ouchi, F. Saito, S. Tsutaki, S. Fujita, K. Kawamura, H. Motoyama (2023) A one-dimensional temperature and

- age modeling study for selecting the drill site of the oldest ice core around Dome Fuji, Antarctica. *The Cryosphere*, 17, 2543-2562.
- Oyabu, I., K. Kawamura, S. Fujita, R. Inoue, H. Motoyama, K. Fukui, M. Hirabayashi, Y. Hoshina, N. Kurita, F. Nakazawa, H. Ohno, K. Sugiura, T. Suzuki, S. Tsutaki, A. Abe-Ouchi, M. Niwano, F. Parrenin, F. Saito, and M. Yoshimori (2023) Temporal variations of surface mass balance over the last 5000 years around Dome Fuji, Dronning Maud Land, East Antarctica. *Climate of the Past*, 19, 293-321.
- Park, C., S.-W. Son, Y.N. Takayabu, S.-H. Park, D.-H. Cha, E.J. Cha (2023) Role of mid latitude baroclinic condition in heavy rainfall events induced by tropical cyclones in South Korea. *Monthly Weather Review*, 151, 3113-3132.
- Polkova, I., D. Swingedouw, L. Hermanson, A. Köhl, D. Stammer, D. Smith, J. Kröger, I. Bethke, X.S. Yang, L.P. Zhang, D. Nicoli, P.J. Athanasiadis, M.P. Karami, K. Pankatz, H. Pohlmann, B. Wu, R. Bilbao, P. Ortega, S.T. Yang, R. Sospedra-Alfonso, W. Merryfield, T. Kataoka, H. Tatebe, Y. Imada, M. Ishii, R.J. Matear (2023) Initialization shock in the ocean circulation reduces skill in decadal predictions of the North Atlantic subpolar gyre. *Frontiers in Climate*, 5, doi: 10.3389/fclim.2023.1273770.
- Ren, X., Lunt, D.J., Hendy, E., von der Heydt, A., Abe-Ouchi, A., Otto-Bliesner, B., Williams, C.J.R., Stepanek, C., Guo, C., Chandan, D., Lohmann, G., Tindall, J.C., Sohl, L.E., Chandler, M.A., Kageyama, M., Baatsen, M.L.J., Tan, N., Zhang, Q., Feng, R., Hunter, S., Chan, W.-L., Peltier, W.R., Li, X., Kamae, Y., Zhang, Z., and Haywood, A.M. (2023) The hydrological cycle and ocean circulation of the Maritime Continent in the Pliocene: results from PlioMIP2. *Climate of the Past*, 19, 2053-2077.
- Rugenstein, M., S. Dhame, D. Olonscheck, R.J. Wills, M. Watanabe, R. Seager (2023) Connecting the SST pattern problem and the hot model problem. *Geophysical Research Letters*, 50, doi: 10.1029/2023GL105488.
- Seroussi, H., Verjans, V., Nowicki, S., Payne, A.J., Goelzer, H., Lipscomb, W.H., Abe-Ouchi, A., Agosta, C., Albrecht, T., Asay-Davis, X., Barthel, A., Calov, R., Cullather, R., Dumas, C., Galton-Fenzi, B.K., Gladstone, R., Golledge, N.R., Gregory, J.M., Greve, R., Hattermann, T., Hoffman, M.J., Humbert, A., Huybrechts, P., Jourdain, N.C., Kleiner, T., Larour, E., Leguy, G.R., Lowry, D.P., Little, C.M., Morlighem, M., Pattyn, F., Pelle, T., Price, S.F., Quiquet, A., Reese, R., Schlegel, N.-J., Shepherd, A., Simon, E., Smith, R.S., Straneo, F., Sun, S., Trusel, L.D., Van Breedam, J., Van Katwyk, P., van de Wal, R.S.W., Winkelmann, R., Zhao, C., Zhang, T., Zwinger, T. (2023) Insights into the vulnerability of Antarctic glaciers from the ISMIP6 ice sheet model ensemble and associated uncertainty. *The Cryosphere*, 17, 5197-5217.
- Sherriff-Tadano, S., A. Abe-Ouchi, M. Yoshimori, R. Ohgaito, T. Vadsaria, W.-L. Chan, H. Hotta, M. Kikuchi, T. Kodama, A. Oka, K. Suzukia (2023) Southern ocean surface temperatures and cloud biases in climate models connected to the representation of glacial deep ocean circulation. *Journal of Climate*, 36, 3849-3866.
- Shiogama, H., H. Tatebe, M. Hayashi, M. Abe, M. Arai, H. Koyama, Y. Imada, Y. Kosaka, T. Ogura, and M. Watanabe (2023) MIROC6 Large Ensemble (MIROC6-LE): Experimental design and initial analyses. *Earth System Dynamics*, 14, 1107-1124.
- Singh, T., Y. Matsumi, T. Nakayama, S. Hayashida, P.K. Patra, N. Yasutomi, M. Kajino, K. Yamaji, P. Khatri, M. Takigawa, H. Araki, Y. Kurogi, M. Kuji, K. Muramatsu, R. Imasu, A. Ananda, A.A. Arbain, K. Ravindra, S. Bhardwaj, S. Kumar, S. Mor, S.K. Dhaka, A.P. Dimri, A. Sharma, N. Singh, M.S. Bhatti, R. Yadav, K. Vatta, S. Mor (2023) Very high particulate pollution over northwest India captured by a high-density in situ sensor network. *Scientific Reports*, 13, doi: 10.1038/s41598-023-39471-1.
- Sugino, K., A. Oka (2023) Zinc and silicon biogeochemical decoupling in the North Pacific Ocean. *Journal of Oceanography*, 79, 61-76.
- Tanaka, T., H. Kawase, Y. Imada, Y. Kawai, S. Watanabe (2023) Risk-based versus storyline approaches for global warming impact assessment on basin-averaged extreme rainfall: a case study for Typhoon Hagibis in eastern Japan. *Environmental Research Letters*, 18, doi: 10.1088/1748-9326/accc24.
- Toda, M., M. Yoshimori, M. Watanabe (2023) An energy budget framework to understand mechanisms of land-ocean warming contrast induced by increasing greenhouse gases. Part II: Transient climate state. *Journal of Climate*, 36, 4307-4326.
- Tsuji, H., Y.N. Takayabu (2023) A hierarchical structure of the heavy rainfall event over Kyushu in July 2020. *Journal of the Meteorological Society of Japan. Ser. II*, 101, 271-287.
- Tsuji, H., Y.N. Takayabu, E. Tochimoto (2023) Quantification of precipitation and latent heating associated with Northern Hemisphere winter extratropical cyclones using the GPM KuPR. *Journal of Climate*, 36, 4723-4737.
- Vasilyeva, D.E., E.A. Gulyaev, R. Imasu, Y.I. Markelov, Y. Matsumi, A.V. Talovskaya, A.A. Shchelkanov, V.M. Gadelshin (2023) A measuring system for PM_{2.5} concentration and meteorological parameters for a multipoint aerosol monitoring network in Yekaterinburg. *Atmospheric and Oceanic Optics*, 36, 790-797.
- Watanabe, M., T. Iwakiri, Y. Dong, S.M. Kang (2023) Two competing drivers of the recent Walker circulation trend. *Geophysical Research Letters*, 50, doi: 10.1029/2023GL105332.
- Watanabe, Y., A. Abe-Ouchi, F. Saito, K. Kino, R. Oishi, T. Ito, K. Kawamura, W.-L. Chan (2023) Astronomical forcing shaped the timing of early Pleistocene glacial cycles. *Communications Earth and Environments*, 4, doi: 10.1038/s43247-023-00765-x.

- Weiffenbach, J.E., M.L.J. Baatsen, H.A. Dijkstra, A.S. von der Heydt, A. Abe-Ouchi, E.C. Brady, W.-L. Chan, D. Chandan, M.A. Chandler, C. Contoux, R. Feng, C. Guo, Z. Han, A.M. Haywood, Q. Li, X. Li, G. Lohmann, D.J. Lunt, K.H. Nisancioğlu, B.L. Otto-Bliesner, W.R. Peltier, G. Ramstein, L.E. Sohl, C. Stepanek, N. Tan, J.C. Tindall, C.J.R. Williams, Q. Zhang, Z. Zhang (2023) Unraveling the mechanisms and implications of a stronger mid-Pliocene Atlantic Meridional Overturning Circulation (AMOC) in PlioMIP2. *Climate of the Past*, 19, 61-85.
- Yamada, Y., T. Miyakawa, M. Nakano, C. Kodama, A. Wada, T. Nasuno, Y. - W. Chen, A. Yamazaki, H. Yashiro, M. Satoh (2023) Large ensemble simulation for investigating predictability of precursor vortices of Typhoon Faxai in 2019 with a 14 - km mesh global nonhydrostatic atmospheric model. *Geophysical Research Letters*, 50, doi: 10.1029/2022GL100565.
- Yamagami, Y., H. Tatebe, T. Kataoka, T. Suzuki, M. Watanabe (2023) Impacts of oceanic mesoscale structures on sea surface temperature in the Arabian Sea and Indian summer monsoon revealed by climate model simulations. *Journal of Climate*, 36, 5477-5490.
- Zadvorniykh, I., K.G. Gribanov, V. Zakharov, R. Imasu (2023) Retrieval of HDO relative content in the atmosphere from simultaneous GOSAT-2 measurements in the thermal and near-IR. *Atmospheric and Oceanic Optics*, 36, 127-131.
- Zheng, J., X. Guo, H. Yang, K. Du, X. Mao, W. Jiang, T. Sagawa, Y. Miyazawa, S. M. Varlamov, A. Abe-Ouchi, W.-L. Chan (2023) Low sea surface salinity event of the Japan Sea during the Last Glacial Maximum. *Paleoceanography and Paleoclimatology*, 38, doi: 10.1029/2022PA004486.
- 岡顕 (2023) 全球海洋炭素循環モデルにおける海洋炭素ポンプの診断. 月刊海洋, 55, 132-136.
- 小林英貴, 岡顕 (2023) 氷期の海洋炭素循環シミュレーション. 地球化学, 57, 205-223.

海洋地球システム研究 (Ocean-Earth System Science)

- Akizawa, N., M. Godard, B. Ildefonse, S. Arai (2023) Formation of lower fast-spread oceanic crust: a structural and geochemical study of troctolites in the Hess Deep Rift (East Pacific Rise). *Progress in Earth and Planetary Science*, 10, doi: 10.1186/s40645-023-00560-4.
- Aoyama, M., Y. Inomata, H. Kaeriyama, Y. Kumamoto, S. Otosaka, Y. Tateda, D. Tsumune (2023) *Radionuclides in the Marine Environment: Scientific view on the Fukushima Dai-ichi Nuclear Power Station Accident by 7 oceanographers*. University of Tsukuba Press, 370pp.
- Arai, R., S. Miura, Y. Nakamura, G. Fujie, S. Kodaira, Y. Kaiho, K. Mochizuki, R. Nakata, M. Kinoshita, Y. Hashimoto, Y. Hamada, K. Okino (2023) Upper-plate conduits linked to plate boundary that hosts slow earthquakes. *Nature Communications*, 14, doi: 10.1038/s41467-023-40762-4.
- Azami, K., K. Koyama, S. Machida, K. Okino, K. Yasukawa, Y. Kato, E. Uchida (2023) Formation of hydrothermal ferromanganese oxides from the Daigo-Kume Knoll in the middle Okinawa Trough, Japan. *Marine Geology*, 463, doi: 10.1016/j.margeo.2023.107117.
- Brosset, C., N. Höche, R. Witbaard, K. Nishida, K. Shirai, R. Mertz-Kraus, B.R. Schöne (2023) Sr/Ca in shells of laboratory-grown bivalves (*Arctica islandica*) serves as a proxy for water temperature - implications for (paleo)environmental research? *Frontiers in Marine Science*, 10, doi: 10.3389/fmars.2023.1279164.
- Chung, M.T., T. Kitagawa, N. Murakami-Sugihara, K. Tanaka, S. Miki, K. Shirai (2023) Pre-treatment methods for stable oxygen and carbon isotope analyses of structural carbonates of bones in marine teleost fishes. *Rapid Communications in Mass Spectrometry*, 37, doi: 10.1002/rcm.9609.
- Conner, K., S. Sharma, R. Uchiyama, K. Tanaka, N. Murakami-Sugihara, K. Shirai, S. Kahng (2023) Raman analysis of octocoral carbonate ion structural disorder along a natural depth gradient, Kona coast, Hawai'i. *American Mineralogist*, 108, 999-1013.
- Florindo, F., V. Acocella, A.M. Carlton, P. D' Odorico, Q. Duan, A. Gettelman, J. Halekas, R. Harris, G. Mollenhauer, A. Robock, C. Stirling, Y. Yokoyama (2023) 60 Years and beyond of *Reviews of Geophysics*. *Reviews of Geophysics*, 61, doi: 10.1029/2023rg000807.
- Fukuyo, N., G. Clark, Y. Yokoyama (2023) Reappraisal of lagoon specific local marine reservoir effects in Tongatapu, the Kingdom of Tonga, over the last 3000 years. *Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms*, 538, 185-191.
- Giroud, S., Y. Tomonaga, M.S. Brennwald, N. Takahata, T. Shibata, Y. Sano, R. Kipfer (2023) New experimental approaches enabling the continuous monitoring of gas species in hydrothermal fluids. *Frontiers in Water*, 4, doi: 10.3389/frwa.2022.1032094.
- Gong, L., A. Holbourn, W. Kuhnt, B. Opdyke, Y. Zhang, A.C. Ravelo, P. Zhang, J. Xu, K. Matsuzaki, I. Aiello, S. Beil, N. Andersen (2023) Middle Pleistocene re-organization of Australian Monsoon. *Nature Communications*, 14, doi: 10.1038/s41467-023-37639-x.
- Hagihara, Y., Y. Ohno, H. Horie, W. Roh, M. Satoh, T. Kubota (2023) Global evaluation of Doppler velocity errors of EarthCARE cloud-profiling radar using a global storm-resolving simulation. *Atmospheric Measurement Techniques*, 16, 3211-3219.
- Hassan, M.B., G. Tagliaro, B. Harper, A.W. Droxler, E. Herrero-Bervera, Y. Yokoyama, A. Puga-Bernabéu, J.M. Webster, L. Jovane (2023) A magnetic and geochemical approach to the changing sedimentation accumulation on the upper

- slope of the great barrier reef, northeastern Australian margin. *Quaternary Science Reviews*, 315, doi: 10.1016/j.quascirev.2023.108230.
- Hong., J., H. Kim, W. Lee, J. Yu, T.P. Fischer, N. Takahata, Y. Sano, H. Lee (2023) Fault-related basins as carbon reservoirs: Soil CO₂ emissions in the SE Korean Peninsula. *Catena*, 231, doi: 10.1016/j.catena.2023.107300.
- Horikawa, K., T. Kodaira, J. Zhang, H. Obata (2023) Salinity-oxygen isotope relationship during an El Niño (2014–2015) in the southwestern Pacific and comparisons with GEOSECS data (La Niña, 1973–1974). *Marine Chemistry*, 249, doi: 10.1016/j.marchem.2023.104222.
- Ijiri, A., Setoguchi, R., Mitsutome, Y., Toki, T., Murayama, M., Hagino, K., Hamada, Y., Yamagata, T., Matsuzaki, H., Tanikawa, W., Tadai, O., Kitada, K., Hoshino, T., Noguchi, T., Ashi, J., Inagaki, F. (2023) Origins of sediments and fluids in submarine mud volcanoes off Tanegashima Island, northern Ryukyu Trench, Japan. *Frontiers in Earth Science*, 11, doi: 10.3389/feart.2023.1206810.
- Ikhsani, I.Y., K.H. Wong, H. Ogawa, H. Obata (2023) Dissolved trace metals (Fe, Mn, Pb, Cd, Cu, and Zn) in the eastern Indian Ocean. *Marine Chemistry*, 248, doi: 10.1016/j.marchem.2023.104208.
- Ikuta, Y., M. Sawada, M. Satoh (2023) Determining the impact of boundary layer schemes on the secondary circulation of Typhoon Faxai using radar observations in the gray zone. *Journal of the Atmospheric Sciences*, 80, 961-981.
- Iqbal, M.M., M. Nishimura, M.N. Haider, S. Yoshizawa (2023) Microbial communities on eelgrass (*Zostera marina*) thriving in Tokyo Bay and the possible source of leaf-attached microbes. *Frontiers in Microbiology*, 13, doi: 10.3389/fmicb.2022.1102013.
- Islam, M.R., L. Duc, Y. Sawada, M. Satoh (2023) Does mean sea level trend mask historical storm surge trend: evidence from tropical cyclones affecting Japan since 1980. *Environmental Research Letters*, 18, doi: 10.1088/1748-9326/ace985.
- Jansson, F., M. Janssens, J.H. Grönqvist, A.P. Siebesma, F. Glassmeier, J. Attema, V. Azizi, M. Satoh, Y. Sato, H. Schulz, T. Kölling (2023) Cloud Botany: shallow cumulus clouds in an ensemble of idealized large-domain large-eddy simulations of the trades. *Journal of Advances in Modeling Earth Systems*, 15, doi: 10.1029/2023MS003796.
- Jones, M.M., B.B. Sageman, D. Selby, A.D. Jacobson, S.J. Batenburg, L. Riquier, K.G. MacLeod, B.T. Huber, K.A. Bogus, M.L.G. Tejada, J. Kuroda, R.W. Hobbs (2023) Abrupt episode of mid-Cretaceous ocean acidification triggered by massive volcanism. *Nature Geoscience*, 16, 169-174.
- Kajita, H., Y. Isaji, R. Kato, Y. Nishikura, M. Murayama, N. Ohkouchi, S. Yang, H. Zheng, K. Wang, T. Nakanishi, T. Sasaki, A. Maeda, A. Suzuki, T. Yamanaka, H. Kawahata (2023) Climatic change around the 4.2 ka event in coastal areas of the East China Sea and its potential influence on prehistoric Japanese people. *Palaeogeography, Palaeoclimatology, Palaeoecology*, 609, doi: 10.1016/j.palaeo.2022.111310.
- Kawaguchi, Y., I. Yabe, T. Senju, A. Sakai (2023) Amplification of typhoon-generated near-inertial internal waves observed near the Tsushima oceanic front in the Sea of Japan. *Scientific Reports*, 13, doi: 10.1038/s41598-023-33813-9.
- Kida, S., K. Tanaka, T. Isada, T. Nakamura (2023) Impact of a large shallow semi-enclosed lagoon on freshwater exchange across an inlet channel. *Journal of Geophysical Research: Oceans*, 129, doi: 10.1029/2023JC019755.
- Kobashi, F., N. Usui, N. Akimoto, N. Iwasaka, T. Suga, E. Oka (2023) Influence of North Pacific subtropical mode water variability on the surface mixed layer through the heaving of the upper thermocline on decadal timescales. *Journal of Oceanography*, 79, 379-394.
- Kotsuki, S., K. Terasaki, M. Satoh, T. Miyoshi (2023) Ensemble-based data assimilation of GPM DPR reflectivity: Cloud microphysics parameter estimation with the Nonhydrostatic ICosahedral Atmospheric Model (NICAM). *Journal of Geophysical Research: Atmospheres*, 128, doi: 10.1029/2022JD037447.
- Kubota, K., R. Tanabe, M. Ikebara, Y. Kozaka, K. Seike, Y. Miyairi, Y. Yokoyama (2023) Dataset for the establishment of an age model of marine sediment core KH19-6 Leg.4 PC10/MC14 collected from the Agulhas Ridge in the South Atlantic Ocean. *Data in Brief*, 46, doi: 10.1016/j.dib.2022.108797.
- Kurita, Y., K. Shirai, K. Kubota, H. Togashi, T. Morita (2023) Relationship between stable cesium concentration and body size of Japanese flounder *Paralichthys olivaceus* and the effect of a size-dependent shift in diet. *Journal of Fish Biology*, 104, doi: 10.1111/jfb.15629.
- Kuwae M., B.P Finney, Z. Shi, A. Sakaguchi, N. Tsugeki, T. Omori, T. Agusa, Y. Suzuki, Y. Yokoyama, H. Hinata, Y. Hatada, J. Inoue, K. Matsuoka, M. Shimada, H. Takahara, S. Takahashi, D. Ueno, A. Amano, J. Tsutsumi, M. Yamamoto, K. Takemura, K. Yamada, K. Ikebara, T. Haraguchi, S. Tims, M. Froehlich, L.K. Fifield, T. Aze, K. Sasa, T. Takahashi, M. Matsumura, Y. Tani, P.R. Leavitt, H. Doi, T. Irino, K. Moriya, A. Hayashida, K. Hirose, H. Suzuki, Y. Saito (2023) Beppu Bay, Japan, as a candidate Global boundaries Stratotype Section and Point for the Anthropocene series. *The Anthropocene Review*, 10, 49-86.
- Lebrec, U., S.C. Lang, V. Paumard, M. O' Leary, Y. Yokoyama, J. Hacker, J. Webster (2023) Discovery of Holocene ooid shoals in a siliciclastic delta, De Grey River, North West Shelf, Australia. *Geology*, 51, 366-371.
- Lebrec, U., R. Riera, M. O'Leary, J.M. Webster, Y. Yokoyama, L.A. Gliganic, S.C. Lang, V. Paumard (2023) Drilling 1100-km-long seafloor ridges reveals how palaeoshorelines control carbonate shelf morphologies (North West Shelf, Australia). *Quaternary Science Reviews*, 312, doi: 10.1016/j.quascirev.2023.108164.
- Lee, Y.P., K.H. Wong, H. Obata, K. Nishitani, H. Ogawa, H. Fukuda, C.-J. Lu (2023) Distributions of humic substances in an

- estuarine region (Otsuchi Bay, Japan) determined using electrochemical and optical methods. *Marine Chemistry*, 256, doi: 10.1016/j.marchem.2023.104301.
- Leggett, K., Y. Yokoyama, Y. Miyairi, K. Ota, N. Fukuyo, Y. Shirahama (2023) Testing the potential of Serpulidae tubes as an indicator of past relative sea-level collected from shore wave dissipating blocks along the Pacific and Japan sea coast of northeastern Japan. *Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms*, 538, 58-63.
- Li, Y.X., Y. Zhang, J.C.H. Ip, J. Liu, C. Chen, C.T.S. Little, Y. Yokoyama, M. Yasuhara, J.-W. Qiu (2023) Phylogenetic context of a deep-sea clam (Bivalvia: Vesicomyidae) revealed by DNA from 1 500-year-old shells. *Zoological Research*, 44, 353-356.
- Liu, H.Y., M. Satoh, J.F. Gu, L.L. Lei., J.P. Tang, Z.M. Tan, Y.Q. Wang, J. Xu (2023) Predictability of the most long-lived tropical cyclone Freddy (2023) during its westward journey through the southern tropical Indian Ocean. *Geophysical Research Letters*, 50, doi: 10.1029/2023GL105729.
- Machida, M., A. Iwata, S. Yamada, S. Otosaka, T. Kobayashi, H. Funasaka, T. Morita (2023) Estimation of temporal variation of tritium inventory discharged from the port of Fukushima Dai-ichi Nuclear Power Plant: analysis of the temporal variation and comparison with released tritium inventories from Japan and world major nuclear facilities. *Journal of Nuclear Science and Technology*, 60, 258-276.
- Matsumoto, H., J. Kuroda, R.S. Hori, K. Suzuki (2023) Barremian to Aptian Os isotopic record of a pelagic deep-sea chert (Goshikinohama-bedded chert) in a Japanese accretionary complex. *Cretaceous Research*, 152, doi: 10.1016/j.cretres.2023.105669.
- Matsuzaki, K.M. (2023) Evolution of oceanography of the central Northwest Pacific over the past 10 million years with focus on late Miocene global cooling. *Paleoceanography and Paleoceanography*, 38, doi: 10.1029/2023PA004789.
- Matsuzaki, K.M., A.E. Holbourn, W.M. Kuhnt, M. Ikeda, L. Gong (2023) Variability of the Indonesian Throughflow and Australian monsoon across the mid Pleistocene transition (IODP 363, Site U1483). *Earth and Planetary Science Letters*, 624, doi: 10.1016/j.epsl.2023.118437.
- Matsuzaki, K.M., S. Kamikuri, T. Sagawa (2023) Data report: Middle to Lower Miocene radiolarian biostratigraphy in the Western Pacific Warm Pool at IODP Expedition 363 Site U1490: preliminary results. *Proceedings of the International Ocean Discovery Program*, 366, doi: 10.14379/iodp.proc.363.206.2023.
- Miyairi, Y., Y. Yokoyama, T. Nagata (2023) Newly designed glass apparatus to conduct stepwise dissolution experiment for radiocarbon using fish otoliths. *Nuclear Instruments and Methods in Physics Research. Section B, Beam interactions with materials and atoms*, 539, 22-27.
- Morissette, O., C.N. Trueman, A.M. Sturrock, A.J. Geffen, K. Shirai (2023) Limited evidence for species-specific sensitivity of temperature-dependent fractionation of oxygen stable isotope in biominerals: A meta-analysis. *Methods in Ecology and Evolution*, 14, 1719-1731.
- Moromoto, N., Y. Kawai, K. Terada, M. Miyahara, N. Takahata, Y. Sano, N. Fujikawa, M. Anand (2023) Uranium-lead systematics of lunar basaltic meteorite Northwest Africa 2977. *Mass Spectrometry*, 12, doi: 10.5702/massspectrometry.A0115.
- Nakanishi, R., J. Ashi, M. Aizawa, H. Naruse (2023) Application of mineralogy and geochemistry to identify the landward extent of paleo-tsunami deposits not visible to the naked eye in the coastal wetland of Erimo, Hokkaido, Japan. *Sedimentary Geology*, 447, doi: 10.1016/j.sedgeo.2023.106365.
- Nakanishi, R., J. Ashi, Y. Miyairi, Y. Yokoyama (2023) Relationship between depositional environments and preservabilities of Holocene tsunami deposits on the Hidaka coast, Hokkaido, Japan. *Quaternary Science Advances*, 10, doi: 10.1016/j.qsa.2023.100081.
- Nakano, H., Aikawa, T., Hagita, R., Hamada, H., Hayashi, T., Joshima, H., Kitade, Y., Horimoto - Miyazaki, N., Miyazaki, T., Nemoto, M., Noda, A., Sakaguchi, M., Sukigara, C., Yamada, Y., & Yoshida, J. (2023) Hydrographic structures of Tokyo Bay between 1992 and 2019 and evidence of temperature increase; observational results by the training vessel Seiyo-Maru. *Journal of Oceanography*, 79, 281-294.
- Nakano, M., Y.-W. Chen, M. Satoh (2023) Analysis of the Factors that Led to an uncertainty of track forecast of Typhoon Krosa (2019) by 101-member ensemble forecast experiments using NICAM. *Journal of the Meteorological Society of Japan*, 101, 191-207.
- Nakano, S., H. Furutani, S. Kato, M. Kouduka, T. Yamazaki, Y. Suzuki (2023) Bullet-shaped magnetosomes and metagenomics-based magnetosome gene profiles in a deep-sea hydrothermal vent chimney. *Frontiers in Microbiology*, 14, doi: 10.3389/fmicb.2023.1174899.
- Nishikawa, H., E. Oka, S. Sugimoto (2023) Subtropical Mode Water in a recent persisting Kuroshio large-meander period: part II - formation and temporal evolution in the Kuroshio recirculation gyre off Shikoku. *Journal of Oceanography*, 79, 461-471.
- Noda, A.T., T. Ohno, C. Kodama, Y.W. Chen, N. Kuba, T. Seiki, Y. Yamada, M. Satoh (2023) Recent global nonhydrostatic modeling approach without using a cumulus parameterization to understand the mechanisms underlying cloud changes due to global warming. *Progress in Earth and Planetary Sciences*, 10, doi: 10.1186/s40645-023-00583-x.
- Nomura, D., Y. Kawaguchi, A. Webb, Y. Li, K. Schmidt, E.S. Droste, E.J. Chamberlain, N. Kolabutin, E. Shimanchuk, M.

- Hoppmann, M.R. Gallagher, H. Meyer, M. Mellat, D. Bauch, C. Gabarró, M.M. Smith, J. Inoue, E. Damm, B. Delille (2023) Meltwater layer dynamics of a central Arctic lead: Effects of lead width variation and re-freezing and mixing events during late summer. *Elementa Science Anthropocene*, 11, doi: 10.1525/elementa.2022.00102.
- Nose, T., J. Rabault, T. Waseda, T. Kodaira, Y. Fujiwara, T. Katsuno, N. Kanna, K. Tateyama, J. Voermans, T. Alekseeva (2023) A comparison of an operational wave–ice model product and drifting wave buoy observation in the central Arctic Ocean: investigating the effect of sea-ice forcing in thin ice cover. *Polar Research*, 42, doi: 10.33265/polar.v42.8874.
- Oka, E., S. Sugimoto, F. Kobashi, H. Nishikawa, S. Kanada, T. Nasuno, R. Kawamura, M. Nonaka (2023) Subtropical Mode Water south of Japan impacts typhoon intensity. *Science Advances*, 9, doi: 10.1126/sciadv.adi2793.
- Okino, K., K. Tani, M. Fujii, F. Zhou, O. Ishizuka, Y. Ohara, T. Hanyu, Y. Matamura (2023) Geophysical investigation of the Mado Megamullion oceanic core complex: implications for the end of back-arc spreading. *Progress in Earth and Planetary Science*, 10, doi: 10.1186/s40645-023-00570-2.
- Okuda, H., T. Hirose, A. Yamaguchi (2023) Potential role of volcanic glass-smectite mixtures in slow earthquakes in shallow subduction zones: Insights from low- to high-velocity friction experiments. *Journal of Geophysical Research: Solid Earth*, 128, doi: 10.1029/2022JB026156.
- Okuda, H., M. Kitamura, M. Takahashi, A. Yamaguchi (2023) Frictional properties of the décollement in the shallow Nankai Trough: Constraints from friction experiments simulating in-situ conditions and implications for the seismogenic zone. *Earth and Planetary Science Letters*, 621, doi: 10.1016/j.epsl.2023.118357.
- Okuda, H., A.R. Niemeijer, M. Takahashi, A. Yamaguchi, C.J. Spiers (2023) Hydrothermal friction experiments on simulated basaltic fault gouge and implications for megathrust earthquakes. *Journal of Geophysical Research: Solid Earth*, 128, doi: 10.1029/2022JB025072.
- Ota, K., Y. Yokoyama, Y. Miyairi, S. Yamamoto, Y. Wang, T. Miyajima (2023) Monthly measurements of water dissolved inorganic radiocarbon in Lake Kawaguchi for three years indicating seasonal precipitation-groundwater variations. *Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms*, 538, 75-80.
- Oyabu, R., I. Yasuda, Y. Sasaki (2023) Large-scale distribution and variations of active salt-finger double-diffusion in the western North Pacific. *Journal of Physical Oceanography*, 53, 2013-2027.
- Park, J.-O., E.J. Hondori (2023) Link between the Nankai underthrust turbidites and shallow slow earthquakes. *Scientific Reports*, 13, doi: 10.1038/s41598-023-37474-6.
- Pascal, P.-Y., H. Nomaki, Y. Miyairi, Y. Yokoyama (2023) The use of radiocarbon to evaluate the trophic role of geothermal bacteria in shallow hydrothermal water ecosystem. *Ecological Indicators*, 148, doi: 10.1016/j.ecolind.2023.110108.
- Qiu, B., S. Chen, E. Oka (2023) Why did the 2017 Kuroshio large meander event become the longest in the past 70 years? *Geophysical Research Letters*, 50, doi: 10.1029/2023GL103548.
- Ratnayake, A.S., T.D.U. Wijewardhana, T. Haraguchi, K. Goto, N.P. Ratnayake, H. Tetsuka, Y. Yokoyama, Y. Miyairi, A.M.A.N.B. Attanayake (2023) Sedimentological observations and geochemical characteristics of paleo-tsunami deposits along the east coast of Sri Lanka in the Indian Ocean. *Quaternary International*, 661, 49-59.
- Ray, R., R. Suwa, T. Miyajima, J. Munar, M. Yoshikai, M. Lourdes, S. Diego-McGlone, K. Nadaoka (2023) Sedimentary blue carbon dynamics based on chronosequential observations in a tropical restored mangrove forest. *Biogeosciences*, 20, 911-928.
- Roh, W., M. Satoh, T. Hashino, S. Matsugishi, T. Nasuno, T. Kubota (2023) Introduction to EarthCARE synthetic data using a global storm-resolving simulation. *Atmospheric Measurement Techniques*, 16, 3331-3344.
- Sano, Y., T. Kagoshima, M. Zhang, N. Takahata, T. Onoue, T. Shibata, Y. Nishio, A.-T. Chen, H. Lee, T.P. Fischer, D. Zhao (2023) Older magma at Aso caldera than at Unzen stratovolcano in south west Japan as recorded through helium isotopes. *Communications Earth & Environment*, 4, doi: 10.1038/s43247-022-00649-6.
- Satoh, M., K. Hosotani (2023) Characteristics analysis of the senjo-kousuitai conditions in the Kyushu region in early July: The case of the July 2020 heavy rainfall event. *SOLA*, 19A, 1-8.
- Satoh, Y., S. Otosaka, T. Suzuki, T. Nakanishi (2023) Factors regulating the concentration of particulate iodine in coastal seawater. *Limnology and Oceanography*, 68, 1580-1594.
- Shimizu, Y., Y. Miyairi, Y. Yokoyama (2023) An in situ cosmogenic ¹⁴C extraction system at the Atmosphere and Ocean Research Institute, The University of Tokyo. *Nuclear Instruments and Methods in Physics Research. Section B, Beam interactions with materials and atoms*, 539, 190-196.
- Sukigara C., S. Otosaka, N. Horimoto-Miyazaki, Y. Mino (2023) Temporal variation of particulate organic carbon flux at the mouth of Tokyo Bay. *Journal of Oceanography*, 79, 199-209.
- Suzuki, K., G. Shimoda, A. Ishikawa, T. Kogiso, N. Akizawa (2023) Deciphering deep mantle processes from isotopic and highly siderophile element compositions of mantle-derived rocks: Prospects and limitations. In: *Core-Mantle Co-Evolution: An Interdisciplinary Approach*, edited by T. Nakagawa T. Tsuchiya, M. Satish-Kumar, G. Helffrich, 75-101.
- Tajika, A., N.H. Landman, J.K. Cochran, K. Nishida, K. Shirai, T. Ishimura, N. Murakami-Sugihara, K. Sato (2023) Ammonoid extinction versus nautiloid survival: Is metabolism responsible? *Geology*, 51, 621-625.
- Takahata, Y., K. Uchida, T. Shimamoto, N. Kutsukake, K. Shirai, K. Tanaka, M. Ito (2023) Supplemental feedings affect diet seasonality and niche width in urban Eurasian red squirrels. *Journal of Mammalogy*, 104, 1443-1454.

- Tam, E., Y. Yokoyama, Y. Miyashita, Y. Miyairi, G. Milne, S. Lloyd (2023) Age offsets between radiocarbon samples and changes in Holocene depositional ocean environments captured in sediment cores near Ube City, Yamaguchi Prefecture, Japan. *Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms*, 540, 67-73.
- Tanoue, M., H. Yashiro, Y. Takano, K. Yoshimura, C. Kodama, M. Satoh (2023) Modeling water isotopes using a global non-hydrostatic model with an explicit convection: comparison with gridded data sets and site observations. *Journal of Geophysical Research: Atmospheres*, 128, doi: 10.1029/2021JD036419.
- Teixeira, K.M., J.F. Savian, R.G. Mello, C.G. Leandro, M.V.L. Kochhann, M. Giorgioni, P.H.P.C. Vidal, A.P. de Martini, L. Jovane, F. Frontalini, R. Coccioni, M. Figueiredo, L. R. Tedeschi, H. Matsumoto, J. Kuroda., R.I.F. Trindade (2023) Environmental magnetic characterization for the Piaggi Level and the Cretaceous Oceanic Red Bed 7 (late Albian, Poggio le Guaine core, central Italy). *Global and Planetary Change*, 230, doi: 10.1016/j.gloplacha.2023.104281.
- Toyoda, S., K. Terajima, N. Yoshida, C. Yoshikawa, A. Makabe, F. Hashihama, H. Ogawa (2023) Extensive accumulation of nitrous oxide in the oxygen minimum zone in the Bay of Bengal. *Global Biogeochemical Cycles*, 37, doi: 10.1029/2022GB007689.
- Tsuneoka, R., Y. Yokoyama, W. Sakashita, K. Ota, Y. Miyairi, R. Kondo, M. Yokochi, K. Kaneko, T. Inoue, N. Kito, K. Uemura, M. Sumita, A. Momohara, H. Fujita (2023) Radiocarbon dating of wetland sediment from the Konsen Plateau, eastern Hokkaido, Japan. *Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms*, 536, 67-71.
- Usui, Y., T. Yamazaki (2023) K-feldspar enrichment in the Pacific pelagic sediments before Miocene. *Progress in Earth and Planetary Sciences*, 10, doi: 10.1186/s40645-023-00581-z.
- Wang, M., T.Y. Nakajima, W. Roh, M. Satoh, K. Suzuki, T. Kubota, M. Yoshida (2023) Evaluation of the spectral misalignment on the Earth Clouds, Aerosols and Radiation Explorer/multi-spectral imager cloud product. *Atmospheric Measurement Techniques*, 16, 603-623.
- Wiwit, K.H. Wong, H. Fukuda, H. Ogawa, A. Mashio, H. Obata (2023) Organic complexation of copper in Japanese estuarine waters using reverse titration method. *Journal of Oceanography*, 79, 335-348.
- Yamada, Y., N. Patel, H. Fukuda, T. Nagata, S. Mitarai, F. Azam (2023) Bacterial surface roughness regulates nanoparticle scavenging in seawater. *Limnology and Oceanography*, 68, 780-789.
- Yamamoto, M., T. Hirose, K. Ikeda, M. Takahashi., M. Satoh (2023) Short-period planetary-scale waves in a Venus general circulation model: Rotational and divergent component structures and energy conversions. *Icarus*, 392, doi: 10.1016/j.icarus.2022.115392.
- Yamamoto, M., K. Ikeda, M. Takahashi, M. Satoh (2023) Rotational/divergent flow and energy conversion of thermal tides in a Venus general circulation model. *Icarus*, 411, doi: 10.1016/j.icarus.2023.115921.
- Yamamoto, S., N. Kometani, M. Yoshimoto, Y. Miyairi, Y. Yokoyama (2023) Eruptive history of Mt. Fuji over the past 8000 years based on integrated records of lacustrine and terrestrial tephra sequences and radiocarbon dating. *Quaternary Science Advances*, 12, doi: 10.1016/j.qsa.2023.100091.
- Yamashita, Y., Y. Mori, H. Ogawa (2023) Hydrothermal-derived black carbon as a source of recalcitrant dissolved organic carbon in the ocean. *Science Advances*, 9, doi: 10.1126/sciadv.ade3807.
- Yamazaki, T., J. Li, T. Shimono, T. Kanamatsu (2023) Difference in relative paleointensity recording efficiency of magnetic mineral constituents in a sediment core of Chile. *Journal of Geophysical Research: Solid Earth*, 128, doi: 10.1029/2023JB026816.
- Yokoyama, Y., A. Nakamura, G. Nagano, H. Maemoku, Y. Miyairi, S. Obrochta, H. Matsuzaki (2023) An initial attempt to date Pleistocene marine terraces in the south coast of Japan using in situ cosmogenic ^{10}Be and ^{26}Al . *Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms*, 535, 255-260.
- Yoshida, K., J. Nishioka, I. Yasuda, K. Suzuki (2023) Different responses of phytoplankton to Fe manipulation in Fe-limited waters with contrasting surface mixed layer depths in the western subarctic Pacific. *Journal of Oceanography*, 79, 483-497.
- Yoshimura, Y., O. Ishizuka, T. Yamazaki, H.-S. Ahn, T. Kidane, Y. Yamamoto, S. Sekimoto, T. Sano, Y. Otofugi (2023) Edge-driven convection melting before the emplacement of the Afar mantle plume head inferred from $^{40}\text{Ar}/^{39}\text{Ar}$ dating. *Geophysical Research Letters*, 50, doi: 10.1029/2022GL102560.
- Zan, J., B.A. Maher, T. Yamazaki, X. Fang, W. Han, J. Kang, Z. Hu (2023) Mid-Pleistocene links between Asian dust, Tibetan glaciers, and Pacific iron fertilization. *Proceedings of the National Academy of Sciences*, 120, doi: 10.1073/pnas.2304773120.
- Zhao, L., B.P. Harvey, T. Higuchi, S. Agostini, K. Tanaka, N. Murakami-Sugihara, H. Morgan, P. Baker, J.M. Hall-Spencer, K. Shirai (2023) Ocean acidification stunts molluscan growth at CO_2 seeps. *Science of The Total Environment*, 873, doi: 10.1016/j.scitotenv.2023.162293.
- 秋澤紀克 (2023) 海洋マントルカンラン岩から探る海洋リソスフェアの熱化学状態 . 岩石鉱物科学 , 52, doi: 10.2465/gkk.230204.
- 小形祐介, 後藤和久, 篠崎鉄哉, 池原 実, CHAGUÉ Catherine, 川又隆央, 横山祐典, 宮入陽介, 石澤亮史, 手塚 寛 (2023) 宮城県岩沼市における地球化学分析を用いた古環境復元と歴史津波堆積物の認定 . 地学雑誌 , 132, 275-296.

- 乙坂重嘉, 小畠 元, 川口悠介, 矢部いつか, 荒巻能史, 和川 拓, 帰山秀樹, 井上睦夫, 長尾誠也 (2023) 天然放射性核種で紐解く海洋性粒子の動態. 月刊海洋, 55, 106-113.
- 小畠 元, 近藤能子, 堀川恵司, 高野祥太朗 (2023) 卷頭言: 海洋における微量元素・同位体研究. 地球化学, 57, 31-34.
- 小畠 元, 西岡 純, 近藤能子, 張 効 (2023) 海洋における微量元素・同位体の地球化学研究の進展: 国際 GEOTRACES 計画の成果. 地球化学, 57, 35-54.
- 漢那直也 (2023) 南極の氷床氷河・海氷域における微量金属の動態. 地球化学, 57, 127-141.
- 佐藤正樹, 松岸修平 (2023) 全球ラージエディシミュレーションへの挑戦. 月刊海洋, 55, 172-179.
- 西岡 純, Schlitzer Reiner, 小畠 元, 近藤能子, 張 効 (2023) 海洋における微量元素・同位体のグローバルデータセット構築に向けたGEOTRACES の取り組み. 地球化学, 57, 55-63.
- 眞塙麻彩実, 小畠 元 (2023) 海水中の白金族元素に関する研究の現状と今後. 地球化学, 57, 55-63.
- 町田昌彦, 岩田亜矢子, 山田 進, 乙坂重嘉, 小林卓也, 船坂英之, 森田貴己 (2023) 福島前面海域におけるトリチウム存在量の推定とその経時変化. 日本原子力学会文論文誌, 22, 12-24.
- 町田昌彦, 岩田亜矢子, 山田 進, 乙坂重嘉, 小林卓也, 船坂英之, 森田貴己 (2023) 福島第一原発港湾から流出した放射性ストロンチウム ^{90}Sr (^{89}Sr) 量の経時変化の推定: - 原発事故から 2022 年 3 月までの流出量変化の分析と福島沿岸および沖合への環境影響評価. 日本原子力学会文論文誌, 22, 119-139.

海洋生命システム研究 (Marine Life Science)

- Amano, M., K. Aoki, H. Kobayashi, S. Minamikawa, K. Sato, T. Kubodera (2023) Stereotypical diel movement and dive pattern of male sperm whales in a submarine canyon revealed by land-based and bio-logging surveys. *Frontiers in Marine Science*, 10, doi: 10.3389/fmars.2023.1150308.
- Andrew, S.M., C.M. Moreno, K. Plumb, B. Hassanzadeh, L. Gomez-Consarnau, S.N. Smith, O. Schofield, S. Yoshizawa, T. Fujiwara, W.G. Sunda, B.M. Hopkinson, A.N. Septer, A. Marchetti (2023) Widespread use of proton-pumping rhodopsin in Antarctic phytoplankton. *Proceedings of the National Academy of Sciences of the United States of America*, 120, doi: 10.1073/pnas.2307638120.
- Aruga, N., K. Morita, M. Aruga, K. Ueda, K. Fujii, K. Orito, K. Watanabe, F. Nakamura (2023) Spawning habitat characteristics and egg mortality in relation to river geomorphology and run-times of chum salmon (*Oncorhynchus keta*) in a metropolitan river system, northern Japan. *Environmental Biology of Fishes*, 106, 1277-1293.
- Beal, M., P. Catry, R. A. Phillips, S. Oppel, J.P.Y. Arnould, M.I. Bogdanova, M. Bolton, A.P.B. Carneiro, C. Clatterbuck, M. Connors, F. Daunt, K. Delord, K. Elliott, A. Fromant, J.P. Granadeiro, J.A. Green, L. Halsey, K.C. Hamer, M. Ito, R. Jeavons, J.-H. Kim, N. Kokubun, S. Koyama, J.V. Lane, W.Y. Lee, S. Matsumoto, R.A. Orben, E. Owen, V.H. Paiva, C.J. Pollock, J.A. Ramos, P. Sagar, K. Sato, S.A. Shaffer, L. Soanes, A. Takahashi, D.R. Thompson, L. Thorne, L. Torres, Y. Watanuki, S.M. Waugh, H. Weimerskirch, K. Yoda, J.C. Xavier, M.P. Dias (2023) Quantifying annual spatial consistency in breeding seabirds to inform important site identification. *Biological Conservation*, 281, doi: 10.1016/j.biocon.2023.109994.
- Bograd, S.J., M. Edwards, S. Ito, J. Nye, E. Chappell (2023) Fisheries Oceanography : The first 30 years and new challenges in the 21st century. *Fisheries Oceanography*, 32, 3-9.
- Chang T., B.P.V. Hunt, J. Hirai, C.A. Suttle (2023) Divergent RNA viruses infecting sea lice, major ectoparasites of fish. *PLOS Pathogens*, 19, doi: 10.1371/journal.ppat.1011386.
- Chazan, A., I. Das, T. Fujiwara, S. Murakoshi, A. Rozenberg, A. Molina-Márquez, F.K. Sano, T. Tanaka, P. Gómez-Villegas, S. Larom, A. Pushkarev, P. Malakar, M. Hasegawa, Y. Tsukamoto, T. Ishizuka, M. Konno, T. Nagata, Y. Mizuno, K. Katayama, R. Abe-Yoshizumi, S. Ruhman, K. Inoue, H. Kandori, R. León, W. Shihoya, S. Yoshizawa, M. Sheves, O. Nureki, O. Béjà (2023) Phototrophy by antenna-containing rhodopsin pumps in aquatic environments. *Nature*, 615, 535-540.
- Chowdhury, S., E. Raes, C. Horstmann, A. Ahmed, C. Ridame, N. Metzli, P.S. Bhavya, T. Sato, T. Shiozaki, S. Bonnet, C.R. Loscher, A. Singh, M. Benavides (2023) Diazotrophy in the Indian Ocean: Current understanding and future perspectives. *Limnology and Oceanography Letters*, 8, 707-722.
- Clark, B., A. Carneiro, E. Pearmain, M.-M. Rouyer, T. Clay, W. Cowger, R. Phillips, A. Manica, C. Hazin, M. Eriksen, J. González-Solís, J. Adams, Y. Albores-Barajas, J. Alfaro-Shigueto, M. Alho, D. Araujo, J.M. Arcos, J. Arnould, N. Barbosa, C. Barbraud, A. Beard, J. Beck, E. Bell, D. Bennet, M. Berlincourt, M. Bischoito, O. Bjørnstad, M. Bolton, K.B. Jones, J. Borg, K. Bourgeois, V. Bretagnolle, J. Bried, J. Briskie, M. Brooke, K. Brownlie, L. Bugoni, L. Calabrese, L. Campioni, M. Carey, R. Carle, N. Carlile, A.R. Carreiro, P. Catry, T. Catry, J. Cecere, F. Ceia, Y. Cherel, C.-Y. Choi, M. Cianchetti-Benedetti, R. Clarke, J. Cleeland, V. Colodro, B. Congdon, J. Danielsen, F. De Pascalis, Z. Deakin, N. Dehnhard, G. Dell'Omoo, K. Delord, S. Descamps, B. Dilley, H. Dinis, J. Dubos, B. Dunphy, L. Emmerson, A. Fagundes, A. Fayet, J. Felis, J. Fischer, A. Freeman, A. Fromant, G. Gaibani, D. García, C. Gjerdrum, I.S. Gomes, M. Forero, J.P. Granadeiro, W. Grecian, D. Grémillet, T. Guilford, G. Hallgrímsson, L. Halpin, E. Hansen, A. Hedd, M. Helberg, H. Helgason, L. Henry, H. Hereward, M. Hernández-Montero, M. Hindell, P. Hodum, S. Imperio, A. Jaeger, M. Jessopp, P. Jodice, C. Jones, C. Jones, J.E. Jónsson, A. Kane, S. Kapelj, Y. Kim, H. Kirk, Y. Kolbeinsson, P. Kraemer, L. Krüger, P. Lago, T. Landers, J. Lavers, M. Le Corre, A. Leal, M. Louzao, J. Madeiros, M. Magalhães, M. Mallory, J. Masello, B. Massa, S. Matsumoto, F. McDue, L.A. McFarlane Tranquilla, F. Medrano, B. Metzger, T. Militão, W. Monteverchi, R. Montone, L. Navarro-Herrero, V. Neves, D.

- Nicholls, M. Nicoll, K. Norris, S. Oppel, D. ORO, E. Owen, O. Padget, V.r Paiva, D. Pala, J. Pereira, C. Péron, M. Petry, A. Pina, A.T. Pina, P. Pinet, P. Pistorius, I. Pollet, B. Porter, T. Poupart, C. Powell, C. Proaño, J. Pujo-Casado, P. Quillfeldt, J. Quinn, A. Raine, H. Raine, I. Ramírez, J. Ramos, R. Ramos, A. Ravache, M. Rayner, T. Reid, G. Robertson, G. Rocamora, D. Rollinson, R. Ronconi, A. Rotger, D. Rubolini, K. Ruhomaun, A. Ruiz, J. Russell, P. Ryan, S. Saldanha, A. Sanz-Aguilar, M. Sardà Serra, Y. Satgé, K. Sato, W.C. Schäfer, S. Schoombie, S.A. Shaffer, N. Shah, A. Shoji, D. Shutler, I.A. Sigurðsson, M.C. Silva, A.E. Small, C. Soldatini, H. Strøm, C.A. Surman, A. Takahashi, V.R.V. Tatayah, G.A. Taylor, R.J. Thomas, D.R. Thompson, P.M. Thompson, T.L. Thórarinsson, D. Vicente-Sastre, E. Vidal, E.D. Wakefield, S.M. Waugh, H. Weimerskirch, H.U. Wittmer, T. Yamamoto, K. Yoda, C.B. Zavalaga, F.J. Zino, M.P. Dias (2023) Global assessment of marine plastic exposure risk for oceanic birds. *Nature Communications*, 281, doi: 10.1038/s41467-023-38900-z.
- Devloo-Delva F., Burridge C.P., Kyne P.M., Brunnenschweiler J.M., Chapman D.D., Charvet P., Chen X., Cliff G., Daly R., Crymon J.M., Espinoza M., Fernando D., Garcia Barcia L., Glaus K., Gonzale-Garza B.I., Grant M.I., Gunasekera R.M., Hernandez S., Hyodo S., Jabado R.W., Jaquemet S., Johnson G., Ketchum J.T., Magalon H., Marthick J.R., Mollen F.H., Mona S., Neylor G.J.P., Nevill J.E.G., Phillips N.M., Pillans R.D., Postaire B.D., Smootheay A.F., Tachihara K., Tillet B.J., Valerio-Vargas J.A., Feutry P. (2023) From rivers to ocean basins: the role of ocean barriers and philopatry in the genetic structuring of a cosmopolitan coastal predator. *Ecology and Evolution*, 13, doi: 10.1002/ece3.9837.
- Dobashi, T., Y. Miyazaki, E. Tachibana, K. Takahashi, S. Horii, F. Hashihama, S. Yasui-Tamura, Y. Iwamoto, S.-K. Wong, K. Hamasaki (2023) Marine nitrogen fixation as a possible source of atmospheric water-soluble organic nitrogen aerosols in the subtropical North Pacific. *Biogeosciences*, 20, 439-449.
- Goto, A., M. Kuroki, K. Morita (2023) Active feeding of anadromous white-spotted charr *Salvelinus leucomaenis* at the southern latitudinal rivers. *Canadian Journal of Fisheries and Aquatic Sciences*, 80, 1737-1747.
- Haider, M.N., M.M. Iqbal, M. Nishimura, E. Ikemoto, M. Ijichi, K. Kogure (2023) Bacterial response to glucose addition: growth and community structure in seawater microcosms from North Pacific Ocean. *Scientific Reports*, 13, doi: 10.1038/s41598-022-27251-2.
- Hirai, J., S. Katakura, S. Nagai (2023) Comparisons of genetic population structures of copepods *Pseudocalanus* spp. in the Okhotsk Sea: the first record of *P. acuspes* in coastal waters off Japan. *Marine Biodiversity*, 53, doi: 10.1007/s12526-022-01323-y.
- Hoogenboom, J.L., M.K.S. Wong, S. Hyodo, W.G. Anderson (2023) Nitrogen transporters along the intestinal spiral valve of cloudy catshark (*Scyliorhinus torazame*): Rhp2, Rhbg, UT. *Comparative biochemistry and physiology. Part A, Molecular & integrative physiology*, 280, doi: 10.1016/j.cbpa.2023.111418.
- Horie, T., W. Takagi, N. Aburatani, M. Yamazaki, M. Inokuchi, M. Tachizawa, K. Okubo, R. Ohtani-Kaneko, K. Tokunaga, M.K.S. Wong, S. Hyodo (2023) Segment-dependent gene expression profiling of the cartilaginous fish nephron using laser microdissection for functional characterization of nephron at segment levels. *Zoological Science*, 40, 91-104.
- Horii, S., K. Takahashi, T. Shiozaki, S. Takeda, M. Sato, T. Yamaguchi, S. Takino, F. Hashihama, Y. Kondo, T. Takemura, K. Furuya (2023) East-west variabilities of N2 fixation activity in the subtropical North Pacific Ocean in summer: Potential field evidence of the phosphorus and iron co-limitation in the western area. *Journal of Geophysical Research: Oceans*, 128, doi: 10.1029/2022JC019249.
- Iijima, M., K. Komatsu, H. Kagi, Y. Maekawa, T. Sasaki, S. Hyodo, R. Kimura, T. Futami, M. Suzuki (2023) Hydroxyapatite in whitlockite-based hypermineralized hard tissue of elephant shark (*Callorhinchus milii*) tooth plate. *Crystal Growth & Design*, 23, 2031-2041.
- Iqbal, M.M., M. Nishimura, M. Sano, S. Yoshizawa (2023) Particle-attached microbes in eelgrass vegetation areas differ in community structure depending on the distance from the eelgrass bed. *Microbes and Environments*, 38, doi: 10.1264/jsme2.me23013.
- Ishiyama, G., Y.I. Kantor, Y. Kano (2023) Systematics and distributions of upper bathyal species in *Bathyancistrolepis*, a deep-sea whelk genus endemic to the Northwest Pacific (Gastropoda: Buccinidae). *Zoological Science* 40, 486-496.
- Kakui, K., J. Fukuchi, M. Ohta (2023) *Dianthanthera hakuhomaruae* sp. nov. (Copepoda: Siphonostomatoida: Nicothoidae) from the hadal zone in the northwestern Pacific, with an 18S molecular phylogeny. *Acta Parasitologica*, 68, 413-419.
- Kamei, H., K. Okamoto, M. Ohta, H. Itoh, H. Kayama Watanabe, H. Komatsu, S. Kojima (2023) Discovery and genetic characterization of a vestimentiferan, *Lamellibrachia satsuma*, from the submarine volcano Omuro Dashi in the Izu-Ogasawara Arc. *Zoological Science*, 40, 437-443.
- Kanno, C., K.Q. Sakamoto, S.-S. Kang, Y. Yanagawa, S. Katagiri, M. Nagano (2023) The difference in subpopulation structures in sex-sorted and non-sorted semen by discriminant analysis of bull sperm motility data collected by a computer-assisted sperm analysis system. *Andrologia*, 2023, doi: 10.1155/2023/9944344.
- Karaki, T., K. Sakamoto, G. Yamanaka, S. Kimura, A. Kasai (2023) Inshore migration of Japanese eel *Anguilla japonica* encouraged by active horizontal swimming during the glass eel stage. *Fisheries Oceanography*, 32, 419-430.
- Kato, S., M. Ohta, H. Fukumori, T. Hsu, T. Chan, S. Kojima. (2023) Geographic distribution and genetic structures of the tideland snails *Pirenella nipponica* and *P. asiatica* in Taiwan and Japan. *Zoological Studies*, 62, doi: 10.6620/ZS.2023.62-43.
- Kawakami, T., A. Yamazaki, M. Asami, Y. Goto, H. Yamanaka, S. Hyodo, H. Ueno, A. Kasai (2023) Evaluating the sampling effort

- for the metabarcoding-based detection of fish environmental DNA in the open ocean. *Ecology and Evolution*, 13, doi: 10.1002/ece3.9921.
- Kimura, S., R. Inoue, S. Itoh, T. Nagai (2023) Salt-fingering under the thermal-wind and lateral shears in the Kuroshio fronts. *Journal of Geophysical Research: Oceans*, 128, doi: 10.1029/2022JC019435.
- Kobayashi, G., H. Itoh, G. Kanaya, H. Abe, S. Kojima (2023) Genetically isolated population of the coastal species with high dispersal potential: the case of the sentinel crab *Macrophthalmus japonicus* (Brachyura: Macrophthalmidae) in Japan. *Plankton and Benthos Research*, 18, 13-20.
- Koito, T., Y. Ito, A. Suzuki, A. Tame, T. Ikuta, M. Suzuki, S. Mitsunobu, M. Sugimura, K. Inoue (2023) Difference in sulfur regulation mechanism between tube-dwelling and free-moving polychaetes sympatrically inhabiting deep-sea hydrothermal chimneys. *Zoological Letters*, 9, doi: 10.1186/s40851-023-00218-5.
- Koizumi, K., A. Okabe, H. Kimukai, H. Sato, H. Taguchi, M. Nishimura, B.G. Kwon, K. Saido (2023) Novel decomposition of polycarbonate and effect for marine ecosystem. *RSC Advances*, 13, 29668-29674.
- Kojima, K., S. Kawanishi, Y. Nishimura, M. Hasegawa, S. Nakao, Y. Nagata, S. Yoshizawa, Y. Sudo (2023) A blue-shifted anion channelrhodopsin from the Colpodellida alga *Vitrella brassicaformis*. *Scientific Reports*, 13, doi: 10.1038/s41598-023-34125-8.
- Kondo, H., H. Kamei, F. Murotani, R. Nozaki, R. Yazawa, R. Tani, K. Koivai, I. Hiroto (2023) A novel liver-specific immunoglobulin heavy chain-like gene in a cartilaginous fish. *Fish and Shellfish Immunology Reports*, 5, doi: 10.1016/j.fsirep.2023.100102.
- Kuraku S., H. Kaiya, T. Tanaka, S. Hyodo (2023) Evolution of vertebrate hormones and their receptors: Insights from non-osteichthyan genomes. *Annual Review of Animal Biosciences*, 11, 163-182.
- Kurihara, M., V. Thiel, H. Takahashi, K. Kojima, D. M. Ward, D. A. Bryant, M. Sakai, S. Yoshizawa, Y. Sudo (2023) Identification of a functionally efficient and thermally stable outward sodium-pumping rhodopsin (BeNaR) from a thermophilic bacterium. *Chemical and Pharmaceutical Bulletin*, 71, 154-164.
- Liu, S., Y. Tian, L. Yang, I.D. Alabia, J. Cheng, S. Ito (2023) Development of a prey-predator species distribution model for a large piscivorous fish: A case study for Japanese Spanish mackerel *Scomberomorus niphonius* and Japanese anchovy *Engraulis japonicus*. *Deep Sea Research Part II: Topical Studies in Oceanography*, 207, doi: 10.1016/j.dsr2.2022.105227.
- Manabe, R., T. Higuchi, S. Watanabe, F.Y. Tantu, H.Y. Sugeha, H. Kaneko, M.J. Miller, S. Hagihara, T. Yoshinaga, A. Syahailatua, S. Wouthuyzen, Triyanto, K.W.A. Masengi, K. Sato, J. Aoyama, K. Tsukamoto (2023) Migration behavior of *Anguilla celebesensis* silver eels within their Tomini Bay spawning area. *Zoological Studies*, 62, doi: 10.6620/ZS.2023.62-46.
- Masuda, T., K. Inomura, J. Mares, T. Kodama, T. Shiozaki, T. Matsui, K. Suzuki, S. Takeda, C. Deutsch, O. Prasil, K. Furuya (2023) Coexistence of dominant marine phytoplankton sustained by nutrient specialization. *Microbiology Spectrum*, 11, doi: 10.1128/spectrum.04000-22.
- Masunaga E., S. Itoh, T. Kitamura (2023) Vertical mixing and oxygen flux caused by daily sea breezes in a shallow stratified lake. *Limnology*, 24, 95-109.
- Matsumoto, H., K. Shirai, B.T. Huber, K.G. MacLeod, J. Kuroda (2023) High-resolution marine osmium and carbon isotopic record across the Aptian-Albian boundary in the southern South Atlantic: Evidence for enhanced continental weathering and ocean acidification. *Palaeogeography, Palaeoclimatology, Palaeoecology*, 613, doi: 10.1016/j.palaeo.2023.111414.
- Minegishi, Y., M.K.-S. Wong, M. Nakao, Y. Nishibe, A. Tachibana, Y.-J. Kim, S. Hyodo (2023) Species-specific patterns in spatio-temporal dynamics of juvenile chum salmon and their zooplankton prey in Otsuchi Bay, Japan, revealed by simultaneous eDNA quantification of diverse taxa from the same water samples. *Fisheries Oceanography*, 32, 311-326.
- Miyake, Y., M.-A. Tellier, A. Takeshige, H. Itakura, A. Yoshida, K. Yokouchi, M. Shiozaki, S. Kimura (2023) Coastal water temperature difference, a potential predictor of glass eel recruitment in *Anguilla japonica* during non-meander periods of the Kuroshio. *Journal of Oceanography*, 79, 413-421.
- Morita, K., J. Tsuboi, G. Sahashi, R. Futamura, K. Ueda, M. Kuroki (2023) Longitudinal structuring of stream-fish assemblages: is niche partitioning observed in two-species systems applicable to three-species systems? *Ichthyological Research*, doi: 10.1007/s10228-023-00937-x.
- Murase, I., T. Kawamoto, N. Akizawa, T. Irie (2023) Rearing in strontium-enriched water induces vaterite otoliths in the Japanese rice fish, *Oryzias latipes*. *Royal Society Open Science*, 10, doi: 10.1098/rsos.230410.
- Nagatomo, Y., S. Horii, J. Hirai, F. Hashihama, T. Sado, T. Fukuchi, M. Miya, K. Takahashi (2023) Geographic distribution of micronektonic fish communities in the subtropical North Pacific: the effect of primary productivity and nitrogen fixation. *Progress in Oceanography*, 217, doi: 10.1016/j.pocean.2023.103086.
- Nishitsuji, K., T. Nagata, H. Narisoko, M. Kanai, K. Hisata, C. Shinzato, N. Satoh (2023) An environmental DNA metabarcoding survey reveals generic-level occurrence of scleractinian corals at reef slopes of Okinawa Island. *Proceedings of the Royal Society B: Biological Sciences*, 290, doi: 10.1098/rspb.2023.0026.
- Ohishi, Y., S. Arimura, K. Shimoyama, K. Yamada, S. Yamauchi, T. Horie, S. Hyodo, S. Kuraku (2023) Egg yolk protein homologs identified in live-bearing sharks: Co-opted in the lecithotrophy-to-matrotrophy shift? *Genome Biology and Evolution*, 15,

- doi: 10.1093/gbe/evad028.
- Ohji, M., H. Harino, K. Hayashizaki, F.M. Yusoff, K. Inoue (2023) Bioaccumulation of antifouling biocides in mangroves and seagrasses in coastal ecosystems. *Journal of the Marine Biological Association of the United Kingdom*, 103, doi: 10.1017/S0025315423000024.
- Ohta, M., T. Takano, S. Kojima, Y. Narimatsu (2023) A new species of *Janiralata* Menzies, 1951 (Isopoda: Janiridae) from Japanese bathyal waters, with a review of the associations with invertebrates among the species of *Janiralata*. *Journal of Crustacean Biology*, 43, doi: 10.1093/jcobi/ruad049.
- Ono, K., A. Iwata, T. Fukuma, Y. Iwamoto, K. Hamasaki, A. Matsuki (2023) Characterization of adhesivity of organic enriched sea spray aerosols by atomic force microscopy. *Atmospheric Environment*, 294, doi: 10.1016/j.atmosenv.2022.119468.
- Pratiwi, H.M., T. Takagi, S. Rusni, K. Inoue (2023) Euryhaline fish larvae ingest more microplastic particles in seawater than in freshwater. *Scientific Reports*, 13, doi: 10.1038/s41598-023-30339-y.
- Pratiwi, H.M., T. Takagi, S. Rusni, K. Inoue (2023) Short-term microplastic exposure in fish larvae: The ingestion, elimination, and initial effect on Japanese medaka (*Oryzias latipes*) larvae. *E3S Web of Conferences*, 442, doi: 10.1051/e3sconf/202344201008.
- Robert, D., J. Shoji, P. Sirois, A. Takasuka, I.A. Catalán, A. Folkvord, S.A. Ludsin, M.A. Peck, S. Sponaugle, P.M. Ayón, R.D. Brodeur, E.Y. Campbell, E.K. D'Alessandro, J.F. Dower, L. Fortier, A.G. García, K.B. Huebert, M. Hufnagl, S. Ito, M. Joh, F. Juanes, M. Nyuji, Y. Oozeki, G. Plaza, M. Takahashi, Y. Tanaka, N. Tojo, S. Watari, N. Yasue, P. Pepin (2023) Life in the fast lane: Revisiting the fast growth-High survival paradigm during the early life stages of fishes. *Fish and Fisheries*, 24, 863-888.
- Sakao, M., T. Hamabata, K. Sato, S. Watanabe, K. Yoda, K. Shiomi (2023) Absence of genetic structure among Streaked Shearwaters *Calonectris leucomelas* breeding in Japan, despite limited dispersal events. *Ornithological Science*, 22, 111-121.
- Sato, N., H. Ono, N. Hirohashi, Y. Iwata (2023) Multiplicity of sperm receptacles for securing the offspring genetic variability in a pelagic squid. *Marine Biology*, 170, doi: 10.1007/s00227-023-04194-4.
- Shao, Z., Y. Xu, H. Wang, W. Luo, L. Wang, Y. Huang, N.S.R. Agawin, A. Ahmed, M. Benavides, M. Bentzon-Tilia, I. Berman-Frank, H. Berthelot, I.C. Biegala, M.B. Bif, A. Bode, S. Bonnet, D.A. Bronk, M.V. Brown, L. Campbell, D.G. Capone, E.J. Carpenter, N. Cassar, B.X. Chang, D. Chappell, Y.L. Chen, M.J. Church, F.M. Cornejo-Castillo, A.M.S. Detoni, S.C. Doney, C. Dupouy, M. Estrada, C. Fernandez, B. Fernández-Castro, D. Fonseca-Batista, R.A. Foster, K. Furuya, N. Garcia, K. Goto, J. Gago, M.R. Gradoville, M.R. Hamersley, B.A. Henke, C. Hörstmann, A. Jayakumar, Z. Jiang, S.-J. Kao, D.M. Karl, L.R. Kittu, A.N. Knapp, S. Kumar, J. LaRoche, H. Liu, J. Liu, C. Lory, C.R. Löscher, E. Marañón, L.F. Messer, M.M. Mills, W. Mohr, P.H. Moisander, C. Mahaffey, R. Moore, B. Mouriño-Carballido, M.R. Mulholland, S. Nakaoka, J.A. Needoba, E.J. Raes, E. Rahav, T. Ramírez-Cárdenas, C. Furbo Reeder, L. Riemann, V. Riou, J.C. Robidart, V.V.S.S. Sarma, T. Sato, H. Saxena, C. Selden, J.R. Seymour, D. Shi, T. Shiozaki, A. Singh, R.E. Sipler, J. Sun, K. Suzuki, K. Takahashi, Y. Tan, W. Tang, J.-É. Tremblay, K. Turk-Kubo, Z. Wen, A.E. White, S.T. Wilson, T. Yoshida, J. P. Zehr, R. Zhang, Y. Zhang, Y.-W. Luo (2023) Global oceanic diazotroph database version 2 and elevated estimate of global oceanic N₂ fixation. *Earth System Science Data*, 15, 3673-3709.
- Shimoyama, K., M. Kawano, N. Ogawa, K. Tokunaga, W. Takagi, M. Kobayashi, S. Hyodo (2023) Progesterone initiates tendril formation in the oviducal gland during egg encapsulation in cloudy catshark (*Scyliorhinus torazame*). *Zoological Letters*, 9, doi: 10.1186/s40851-023-00211-y.
- Shiomi, K., K. Sato, C.A. Bost, Y. Handrich (2023) Stay the course: maintenance of consistent orientation by commuting penguins both underwater and at the water surface. *Marine Biology*, 170, doi: 10.1007/s00227-023-04186-4.
- Shiozaki, T., M. Hirai, F. Kondo, T. Sato, M. Sato, J.L. Iriarte, T. Yokokawa, T. Nunoura, N. Harada (2023) Heterogeneous diazotroph communities in the subtropical-subantarctic transition and aphotic zones off the coast of Patagonia, eastern South Pacific Ocean. *Journal of Geophysical Research: Biogeosciences*, 128, doi: 10.1029/2023JG007683.
- Shiozaki, T., Y. Nishimura, S. Yoshizawa, H. Takami, K. Hamasaki, A. Fujiwara, S. Nishino, N. Harada (2023) Distribution and survival strategies of endemic and cosmopolitan diazotrophs in the Arctic Ocean. *ISME Journal*, 17, 1340-1350.
- Sildever, S., N. Nishi, S. Tazawa, H. Kasai, J. Hirai, A. Shiomoto, T. Kikuchi, S. Kataoka, S. Nagai (2023) Eight years of weekly eDNA monitoring in the North-Western Pacific. *Environmental DNA*, 5, 1202-1215.
- Sugai, Y., N. Natori, K. Tsuchiya, M. Nakagawa, C.M. Honda, S. Shimode, T. Toda (2023) Ingestion rate estimated from food concentration and predatory role of copepod nauplii in the microbial food web of temperate embayment waters. *Journal of Plankton Research*, 45, 325-337.
- Takagi, T., K. Aoyama, K. Motone, S. Aburaya, H. Yamashiro, N. Miura, K. Inoue (2023) Mutualistic interactions between dinoflagellates and pigmented bacteria mitigate environmental stress. *Microbiology Spectrum*, 11, doi: 10.1128/spectrum.02464-22.
- Takahashi, K., M. Ichinomiya, Y. Okazaki, Y. Nishibe (2023) Higher ingestion rates and importance of ciliates in the diet of a large, subarctic copepod revealed by larger volume incubations. *Limnology and Oceanography*, 68, 790-802.
- Takano, T., H. Fukumori, T. Kuramochi, Y. Kano (2023) Deepest digenetic parasite: Molecular evidence of infection in a lower

- abyssal gastropod at 6,200 m. *Deep Sea Research Part I: Oceanographic Research Papers*, 198, doi: 10.1016/j.dsr.2023.104078.
- Takano, T., Y. Kano, T. Mogi, M. Okanishi (2023) *Fusceulimoides kohtskai* gen. et sp. nov., a minute eulimid gastropod parasitic on the little brittle star *Ophiactis savignyi* in central Japan. *Zoological Science*, 40, 64-69.
- Tang, W., B.B. Ward, M. Beman, L. Bristow, D. Clark, S. Fawcett, C. Frey, F. Fripiat, G.J. Herndl, M. Mdutyana, F. Paulot, X. Peng, A.E. Santoro, T. Shiozaki, E. Sintes, C. Stock, X. Sun, X. S. Wan, M.N. Xu, Y. Zhang (2023) Database of nitrification and nitritifiers in the global ocean. *Earth System Science Data*, 15, 5039-5977.
- Thushari G.G.N., K. Miyazono, T. Sato, R Yamashita, A. Takasuka, M. Watai, T. Yasuda, H. Kuroda, K. Takahashi (2023) Floating plastic accumulation and distribution around Kuroshio Current, western North Pacific. *Marine Pollution Bulletin*, 188, doi: 10.1016/j.marpolbul.2023.114604.
- Uchida, T., Y. Yoshioka, Y. Yoshida, M. Fujie, A. Yamaki, A. Sasaki, K. Inoue, C. Shinzato (2023) Genomic and transcriptomic analyses illuminate the molecular basis of the unique lifestyle of a tubeworm, *Lamellibrachia satsuma*. *DNA Research*, 30, doi: 10.1093/dnaregs/dsd014.
- Ueno, H., A. Bracco, J.A. Barth, M.V. Budyansky, D. Hasegawa, S. Itoh, S.Y. Kim, C. Ladd, X. Lin, Y.-G. Park, S. Prants, T. Ross, I.I. Rypina, Y. Sasai, O.O. Trusenkova, E.I. Ustinova, Y. Zhong (2023) Review of oceanic mesoscale processes in the North Pacific: Physical and biogeochemical impacts. *Progress in Oceanography*, 212, doi: 10.1016/j.pocean.2022.102955.
- Uesaka, L., Y. Goto, M. Naruoka, H. Weimerskirch, K. Sato, K.Q. Sakamoto (2023) Wandering albatrosses exert high take-off effort only when both wind and waves are gentle. *eLife*, 12, doi: 10.7554/eLife.87016.
- Wang, Y., R. Yamashita, Y. Matsumura, S. Ito, K. Komatsu (2023) Dynamics of microplastic transport and accumulation in a rural coastal area: Insights from the Otsuchi Bay, a small ria in Sanriku, Japan. *Regional Studies in Marine Science*, 62, doi: 10.1016/j.rsma.2023.102964.
- Wang, Z., S. Ito, I. Yabe, C. Guo (2023) Development of a bioenergetics and population dynamics coupled model: A case study of chub mackerel. *Frontiers in Marine Science*, 10, doi: 10.3389/fmars.2023.1142899.
- Watanabe, H., K. Shiomi, K. Sato, A. Takahashi, Y. Handrich, C.-A. Bost (2023) King penguins adjust their fine-scale travelling and foraging behaviours to spatial and diel changes in feeding opportunities. *Marine Biology*, 170, doi: 10.1007/s00227-022-04170-4.
- Watanabe, T., Hirai, J., Sildever, S., Tadokoro, K., Hidaka, K., Tanita, I., Nishiuchi, K., Iguchi, N., Kasai, H., Nishi, N., Katakura, S., Taniuchi, Y., Kodama, T., Tashiro, S., Nakae, M., Okazaki, Y., Kitajima, S., Sogawa, S., Hasegawa, T., Azumaya, T., Hiroe, Y., Ambe, D., Setou, T., Ito, D., Kusaka, A., Okunishi, T., Tanaka, T., Kuwata, A., Hasegawa, D., Kakehi, S., Shimizu, Y., Nagai, S. (2023) Improving taxonomic classification of marine zooplankton by molecular approach: registration of taxonomically verified 18S and 28S rRNA gene sequences. *PeerJ*, 11, doi: 10.7717/peerj.15427.
- Watanuki, Y., K. Sato, K. Shiomi, S. Wanless, F. Daunt (2023) Foraging habitat and site selection do not affect feeding rates in European shags. *Journal of Experimental Biology*, 226, doi: 10.1242/jeb.244461.
- Wong, M.K.S., Y. Tsuneoka, T. Tsukada (2023) Subcellular localization of Na⁺/K⁺-ATPase isoforms resolved by in situ hybridization chain reaction in the gill of chum salmon at freshwater and seawater. *Fish Physiology and Biochemistry*, 49, 751-767.
- Xing, Q., H. Yu, H. Wang, S. Ito (2023) An improved algorithm for detecting mesoscale ocean fronts from satellite observations: Detailed mapping of persistent fronts around the China Seas and their long-term trends. *Remote Sensing of Environment*, 294, doi: 10.1016/j.rse.2023.113627.
- Xing, Q., H. Yu, H. Wang, S. Ito, F. Chai (2023) Mesoscale eddies modulate the dynamics of human fishing activities in the global midlatitude ocean. *Fish and Fisheries*, 24, 527-543.
- Yamaguchi, Y., W. Takagi, H. Kaiya, N. Konno, M. Yoshida, S. Kuraku, S. Hyodo (2023) Phylogenetic and functional properties of hagfish neurohypophysial hormone receptors distinct from their jawed vertebrate counterparts. *General and Comparative Endocrinology*, 336, doi: 10.1016/j.ygcen.2023.114257.
- Yamamoto, S., K. Morita, S. Kitano, R. Tabata, K. Watanabe, K. Maekawa (2023) Phylogeography of a salmonid fish, white-spotted charr (*Salvelinus leucomaenis*), in a historically non-glaciated region in the northwestern North Pacific. *Biological Journal of the Linnean Society*, 139, 115-130.
- Yoda, K., T. Takagi, T. Koito, M. Okai, H. Makita, S. Mitsunobu, T. Yoshida, K. Inoue (2023) Heterologous expression and functional characterization of cysteamine dioxygenase from the deep-sea mussel *Bathymodiolus septemdierum*. *Fisheries Science*, 89, 387-397.
- Yokokawa, R., K. Watanabe, S. Kanda, Y. Nishino, S. Yasumasu, K. Sano (2023) Egg envelope formation of medaka *Oryzias latipes* requires ZP proteins originating from both the liver and ovary. *Journal of Biological Chemistry*, 299, doi: 10.1016/j.jbc.2023.104600.
- Yoshino, K., K. Yamada, G. Kanaya, T. Komorita, K. Okamoto, M. Tanaka, Y. Henmi, M. Yamamoto (2023) Food web structures and mercury exposure pathway to fish in Minamata Bay. *Archives of Environmental Contamination and Toxicology*, 85, 360-373.
- Yoshioka, Y. Y.-L. Chiu, T. Uchida, H. Yamashita, G. Suzuki, C. Shinzato (2023) Genes possibly related to symbiosis in early life stages of *Acropora tenuis* inoculated with *Symbiodinium microadriaticum*. *Communications Biology*, 6, doi: 10.1038/s42003-023-05350-8.

- Yoshitake, K., K. Yanagisawa, Y. Sugimoto, H. Nakamura, N. Mizusawa, M. Miya, K. Hamasaki, T. Kobayashi, S. Watabe, K. Nishikiori, S. Asakawa (2023) Pilot study of a comprehensive resource estimation method from environmental DNA using universal D-loop amplification primers. *Functional & Integrative Genomics*, 23, doi: 10.1007/s10142-023-01013-3.
- Yoshizawa, S., T. Azuma, K. Kojima, K. Inomura, M. Hasegawa, Y. Nishimura, M. Kikuchi, G. Armin, Y. Tsukamoto, H. Miyashita, K. Ifuku, T. Yamano, A. Marchetti, H. Fukuzawa, Y. Sudo, R. Kamikawa (2023) Light-driven proton pumps as a potential regulator for carbon fixation in marine diatoms. *Microbes and Environments*, 38, doi: 10.1264/jmse2.ME23015.
- Yu, Z., M.K.S. Wong, J. Inoue, S.I Ahmed., T. Higuchi, S. Hyodo, S. Itoh, K. Komatsu, H. Saito, S. Ito (2023) Environmental DNA in the Kuroshio reveals environment-dependent distribution of economically important small pelagic fish. *Frontiers in Marine Science*, 10, doi: 10.3389/fmars.2023.1121088.
- 大土直哉, 大竹純也, 杉村達樹 (2023) 鉗脚可動指に著しい過剰指を生じたタイワンガザミ(狭義)(十脚目:ガザミ科)の記録. ニッヂ・ライフ, 11, 70-73.
- 森田健太郎 (2023) サケを食べながら守り続ける. 二平 章, 佐藤宣子編「ほんとうのエコシステムってなに?: 漁業・林業を知ると世界がわかる(3)(テーマで探究 世界の食・農林漁業・環境 3)」, 農山漁村文化協会.

国際・地域連携研究 (International and Local Research Cooperation)

- Arifin, Z., D. Falahudin, H. Saito, T.H. Mintarsh, M. Hafiz, Y. Suteja (2023) Indonesian policy and researches toward 70% reduction of marine plastic pollution by 2025. *Marine Policy*, 155, doi: 10.1016/j.marpol.2023.105692.
- Bernardo, L.P.C., M. Fujii, T. Ono (2023) Development of a high-resolution marine ecosystem model for predicting the combined impacts of ocean acidification and deoxygenation. *Frontiers in Marine Science*, 10, doi: 10.3389/fmars.2023.1174892.
- Chang, F.-H., Y.-C. Lin, K.-P. Chiang, Y.-H. Nien, C. Hsieh, W.-J. Chen, C.-C. Hung, T. Kobari, H. Saito, W. Savidge (2023) Oceanographic processes linking nearshore, continental shelf, and shelf break. *Frontiers in Marine Science*, 10, doi: 10.3389/fmars.2023.1137312.
- Chen, S., V.S. Kuwahara, T. Katayama, F. Hashihama, K. Yabe, S. Taguchi, K. Takahashi (2023) Variations in photoprotective compounds in surface-dwelling copepods in subtropical open waters. *Plankton and Benthos Research*, 18, 214-224.
- Dai, M., Y.-W. Luo, E.P. Achterberg, T.J. Browning, Y. Cai, Z. Cao, F. Chai, B. Chen, M.J. Church, D. Ci, C. Du, K. Gao, X. Guo, Z. Hu, S.-J. Kao, E.A. Laws, Z. Lee, H. Lin, Q. Liu, X. Liu, W. Luo, F. Meng, S. Shang, D. Shi, H. Saito, L. Song, X.S. Wan, Y. Wang, W.-L. Wang, Z. Wen, P. Xiu, J. Zhang, R. Zhang, K. Zhou (2023) Upper ocean biogeochemistry of the oligotrophic North Pacific subtropical gyre: From nutrient sources to carbon export. *Reviews of Geophysics*, 61, doi: 10.1029/2022rg000800.
- Fujii, I., Y. Okochi, H. Kawamura, M. Makino (2023) Potential cooperation of RFMOs for the integrity of MCS: Lessons from the three RFMOs in the Asia-Pacific. *Marine Policy*, 155, doi: 10.1016/j.marpol.2023.105748.
- Fujii, M., R. Hamanoue, L.P.C. Bernardo, T. Ono, A. Dazai, S. Oomoto, M. Wakita, T. Tanaka (2023) Assessing impacts of coastal warming, acidification, and deoxygenation on Pacific oyster (*Crassostrea gigas*) farming: A case study in the Hinase Area, Okayama Prefecture and Shizugawa Bay, Miyagi Prefecture, Japan. *Biogeosciences*, 20, 4527-4549.
- Jiang, S., F. Hashihama, H. Liu, K. Yoshitake, H. Takami, K. Hamasaki, I.Y. Ikhsani, H. Obata, H. Saito (2023) Variations in physiology and genomic function of *Prochlorococcus* across the eastern Indian Ocean. *Journal of Geophysical Research: Oceans*, 128, doi: 10.1029/2023jc019898.
- Matsubara, H., M. Makino (2023) Gender research in Japanese coastal fisheries. *Maritime Studies*, 22, doi: 10.1007/s40152-023-00330-4.
- Ono, R., Y. Fukuda, M. Fujii, Y. Yamagata (2023) Assessment of unutilized woody biomass energy and the cost and greenhouse gas emissions of woody biomass power plants in Hokkaido, Japan. *Cleaner Energy Systems*, 6, doi: 10.1016/j.cles.2023.100084.
- Sena, N., A. Veiga, A. Semedo, M. Abu-Raya, R. Semedo, M. Makino (2023) Co-designing protected areas management with small island developing states' local stakeholders: A case from coastal communities of Cabo Verde. *Sustainability*, 15, doi: 10.3390/su152015178.
- Tanaka, H., M. Makino (2023) Economic evaluation of MSY-based fishery policy using input-output table: A case study of squid-related industries in Hakodate City, Japan. *Marine Policy*, 157, doi: 10.1016/j.marpol.2023.105843.
- 野村英明, 石丸 隆 (2023) 環境項目と底生生物重量に関する既存資料からみた 1940 年代の東京湾. 沿岸海洋研究, 61, 65-76.
- 保坂直紀 (2023) 「地球規模の気象学 大気の大循環から理解する新しい気象学」. 講談社, 266pp.
- 道田 豊 (2023) 海洋プラスチックデータの管理に関する国内外の動向. 沿岸海洋研究, 61, 113-115.