

YU-YEN, PAN

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Physical Volcanology Group, Department of Earth Sciences,
Simon Fraser University

SOMETHING ABOUT ME

I am a doctoral candidate at the Department of Earth Science, Simon Fraser University. My research focuses on optimizing natural hazard communication systems in Canada. To achieve this goal, I conducted a series of community-engagement works, trying to understand what factors mainly influence people's perception and preparedness, and come up with solutions to problems found. I also engage in a variety of science outreach (e.g., in-person workshops, exhibitions, geopark) and have a YouTube Channel to share our fascinating Earth with kids.

EDUCATION

Simon Fraser University, British Columbia, Canada Jan. 2020- present

Ph.D. in the Department of Earth Sciences

- Research Topic: Effective communication before, during and after a natural hazard emergency

National Taiwan University, Taipei, Taiwan

Sept. 2016- Jan. 2019

M.Sc. in the Department of Geosciences

- Thesis: *Pennichnus formosae* igen. nov. isp. nov. – A deep-reaching L-shaped burrow in the Miocene Taliao Formation, northeastern coast of Taiwan

National Taiwan University, Taipei, Taiwan

Sept. 2012- June 2016

B.Sc. in the Department of Geosciences

WORK EXPERIENCE

Research Assistant

Feb. 2019- Present

Department of Geosciences, National Taiwan University, Taipei, Taiwan

- Designed a trace fossil exhibition "Curiosity Cabinet in Miocene" at Yehliu GeoPark
- Supported multiple fieldwork campaigns and lab analyses

Summer Internship

July 2017- Sept. 2017

Discovery Networks Asia-Pacific, Taipei, Taiwan

- Produced 2 scripts for TV commercials and 7 online promotions which reach 59,781 views
- Analyzed current trends for campaign design
- Coordinated with external and internal teams for TLC Picnic Day and Discovery Hardcore Festival
- Assisted for various filming campaigns

Summer Internship

July 2015- Aug. 2015

National Taiwan Museum, Taipei, Taiwan

- Assisted with organizing museum collections

SCIENCE COMMUNICATION EXPERIENCE

Volcanoes! Boom!

Online / Taiwan

Jan. 2023

- Designed and conducted a series of activities about volcanoes for elementary students in Taiwan

Geoheritage Day

Online / BC

Oct. 2022

- Designed and conducted a series of activities about landslides and mitigation strategies for elementary students in Vancouver

Pennichnus formosae Scicomm Campaign

Online / Taiwan

Jan. 2021-Oct. 2022

- Produced a 5-min introductory video for the trace fossil *Pennichnus formosae* that I had studied in Taiwan, and the video received more than 10.8 K views within two weeks
- Designed and built an interactive exhibition in the Yehliu Geopark

Volunteer for “Skype a scientist”

Oct. 2020- Present

Online / Global

- Shared my career journey and answered questions from children from around the world

Organizer of Meet a Geologist

Dec. 2020- Present

Online / Taiwan

- Created a Mandarin platform to connect geologists with classrooms in Taiwan
- Provides opportunities for youth to explore the world of geology

Initiator of “Rectification Acts: Sinat Tabuk (Tabuk cliff) is not basaltic!”

Nov. 2020

Online / Tabuk Tribe, Taichung, Taiwan

- Cooperated with indigenous communities and geologists in Taiwan to rename a tourist attraction which had a confusing name (The outcrop consists of sedimentary rocks but was called basalt by the tourism agency)
- Designed infographics for this work
- This Rectification Acts was reported by Mandarin Daily News, a newspaper for children in Taiwan

Speaker for “Build your own natural hazard: Virtual classroom”

June 2020

Online/ BC

- Designed a series of experiments for children to explain how natural hazards are caused

Speaker for “Meet an SFU scientist”

June 2020

SFU Science Outreach

- Shared the research I am working on with high school students in British Columbia

Curator of Exhibition: “Where do rocks go?”

Oct. 2016- July 2017

Huoyanshan Ecological Education Center, Miaoli, Taiwan

- Designed a child-friendly exhibition to introduce basic geology through interactive storytelling
- Organized a one-day field trip at Daan Gorge and presented the impact of Chi-Chi earthquake (1999), Taiwan

Founder of PlaYinStones Studio

Oct. 2015- Present

Taipei, Taiwan

- Pioneered the first Chinese YouTube channel for popularization of geology (Currently bilingual: English and Mandarin)

- Launched 22 videos, numerous infographics, and 8 articles on multiple social media platforms (e.g., YouTube, Facebook, SciComm Website “Geostory”)
- Organized a half-year workshop to guide students in Geoscience departments in the production of popular science videos

FUNDING/ PROPOSAL WRITING EXPERIENCE

Community-Engaged Research Funding Program, SFU (CAN\$ 5,000)

2021

- Topic: “Effective Communication Methods Before, During and After a Natural Hazard Emergency: Village of Pemberton Case Study”

SELECT HONOURS

- *Best Student film Prize*, On the Rocks Geological Film Festival, Italian Geological Society (2022): EU\$ 1000
- *University Women's Club of Vancouver Trust Fund Graduate Scholarship in Earth Sciences*, Simon Fraser University. British Columbia (2021 Summer): CAN\$ 2,400
- *Graduate Fellowship*, Simon Fraser University. British Columbia (2021 Summer): CAN\$ 7,000
- *Wei Chow Juan Best Thesis award*, Geological Society Located in Taipei, Taiwan (2020)
- *Honorary Membership*, The Phi Tau Phi Scholastic Honor Society of the Republic of China, Taiwan (2019)

PUBLICATIONS

- Miguez-Salas, O., Löwemark, L., **Pan, Y. Y.**, & Rodríguez-Tovar, F. J. (2021). Selective colonization after storm events in a delta environment: applied ichnology from the early Miocene of Taiwan. *Ichnos*, 1-13.
- **Pan, Y.-Y.**, Nara, M., Löwemark, L., Miguez-Salas, O., Gunnarson, B., Iizuka, Y., Chen, T.-T., Dashtgard, S.E. (2021). The 20-million-year old lair of an ambush-predatory worm preserved in northeast Taiwan. *Nature Scientific reports*, 11(1), 1-10.
- Vaucher, R., Dashtgard, S.E., Horng, C.-S., Dillinger, A., **Pan, Y.-Y.**, Setiaji A.R., Chi, W.-R., & Löwemark L., (2021). Record of precession-driven coupled climate and extreme weather event cyclicity in shallow shelf strata. *Nature Scientific Reports*, In Review.
- Dashtgard, S.E., Löwemark, L., Vaucher, R., **Pan, Y. -Y.**, Pilarczyk, J.E., & Castellort, S. (2020). Tropical cyclone deposits in the Pliocene Taiwan Strait: Processes, examples, and conceptual model. *Sedimentary Geology*, 405, 105687.
- Yeh, C.-P., **Pan, Y.-Y.** and Löwemark, L. (2017). Clues to the behavior of juvenile crustaceans from a peculiar trace fossil (*Ophiomorpha*) at Fanziao. *Taiwan Natural Science*, 36(2), 16-21.