

Conservation News

Conservation workshop in Okinawa: urgent action needed for land hermit crabs

On 21 April 2025, in support of the IUCN Species Survival Commission Invertebrate Conservation Committee's efforts to address taxonomic gaps in underrepresented regions, a workshop was held in Okinawa, Japan, bringing together researchers and stakeholders to discuss challenges in land hermit crab conservation. Recent cases of illegal trafficking of thousands of land hermit crabs from the Ryukyu Islands to Indonesia, Taiwan and China, as well as sales of Okinawa-origin crabs, are of serious concern. During the workshop, participants discussed the ecological roles, cultural values, and management of land hermit crabs, highlighted smuggling incidents and considered future actions.





Land hermit crabs play vital roles in coastal ecosystems. Without management, overharvesting disrupts these systems, where key species aid nutrient cycling as scavengers and prey. They also aid seed dispersal for coastal vegetation, particularly in tropical regions, and their larvae are an important food source for oceanic species. As captive breeding for commercial purposes remains difficult, all individuals in the pet trade are sourced from the wild.

Land hermit crabs also hold cultural significance in many communities. In Okinawa, they are regarded as sacred and a spiritual link between humans and heaven. Traditionally, Okinawan burial customs placed the deceased in coastal caves, often inhabited by hermit crabs, allowing the body and soul to be guided into the afterlife. In Taiwan, coastal communities have a deep connection with these species, and children once played with them.

As land hermit crabs gain popularity as pets, their populations face increasing pressure. In Japan, all *Coenobita*

species are legally protected, yet *Coenobita purpureus*, largely restricted to Japan, is highly sought after. In the past 2 years, multiple cases of illegal poaching in the Ryukyus have been reported. However, penalties remain insufficient to reflect the severity of ecological damage and deter infractions.

To ensure the long-term survival of land hermit crabs, experts proposed several actions during the workshop. Public awareness campaigns should emphasize the ecological importance of land hermit crabs and encourage conservation, such as providing suitable shells and protecting habitats. Regulations should be updated, enforcement strengthened and customs officers supported. Conservation efforts must also extend beyond Japan, as countries involved in illegal imports share responsibility. Coordinated international efforts are essential to ensure future generations continue to enjoy land hermit crabs in Okinawa and along the world's beaches.

CHIA-HSUAN HSU¹  (johnson20535@hotmail.com), JAMES DAVIS REIMER^{2,3} , TOHRU NARUSE⁴ , SHAWN MILLER⁵ and SÉRGIO SILVA HENRIQUES^{6,7} 

¹National Institute for Environmental Studies, Ibaraki, Japan. ²Molecular Invertebrate Systematics and Ecology, Faculty of Science, University of the Ryukyus, Okinawa, Japan. ³Tropical Biosphere Research Center, University of the Ryukyus, Okinawa, Japan. ⁴Tropical Biosphere Research Center, Iriomote Station, University of the Ryukyus, Okinawa, Japan. ⁵Okinawa Nature Photography, Okinawa, Japan. ⁶Centre of Marine Sciences, University of the Algarve, Portugal. ⁷IUCN Species Survival Commission

This is an Open Access article, distributed under the terms of the Creative Commons Attribution licence [CC BY 4.0](https://creativecommons.org/licenses/by/4.0/).