

SHORT COMMUNICATION

Fisher Behaviour Reveals Opportunities for Participatory Monitoring of Sea Turtle Bycatch in China's Small-Scale Fisheries

Jia Xue Li^{1,2} | Daphne Z. Hoh^{1,2}  | Jintao Chen³ | Dayi Nie^{1,2}  | Min Chen^{1,2} 

¹Zhejiang Zhoushan Island Ecosystem Observation and Research Station, Zhejiang Tiantong Forest Ecosystem National Observation and Research Station, Hainan Institute, East China Normal University, Shanghai, China | ²Institute of Eco-Chongming, School of Ecological and Environmental Sciences, East China Normal University, Shanghai, China | ³College of Marine Living Resource Sciences and Management, Shanghai Ocean University, Shanghai, China

Correspondence: Min Chen (mchen@bio.ecnu.edu.cn)

Received: 8 April 2026 | **Revised:** 28 August 2026 | **Accepted:** 1 October 2026

Keywords: bycatch mitigation | Citizen Observatory | fisher interview | local ecological knowledge | postcapture handling

ABSTRACT

Sea turtle bycatch in China's small-scale fisheries remains poorly monitored due to limited reporting pathways. We interviewed fishers across Zhejiang and Hainan to assess the feasibility of incorporating them into bycatch monitoring. Most fishers reported catching sea turtles as bycatch and perceived population declines. Bycaught turtles were commonly released alive, and some fishers noted administering first aid to injured turtles or reporting them to authorities. Fishers' participation in awareness programmes was uneven, and enforcement of turtle protection regulations was perceived as strong. Findings indicate that fishers serve as primary observers and responders, supporting the development of a Citizen Observatory framework.

1 | Introduction

Sea turtle bycatch in small-scale fisheries (SSF) represents a persistent conservation challenge across coastal Asia, where fishing effort extensively overlaps with sea turtle foraging and migratory corridors (Wallace et al. 2013; Ng et al. 2024). Systematic monitoring of these interactions remains limited because conventional management approaches such as observer programmes and enforcement-based compliance are structurally ill-suited to the dispersed, informal nature of SSF (Virgili et al. 2024). Consequently, bycatch events go undocumented, postcapture outcomes remain unknown and conservation responses lack spatial and operational precision (Carpio et al. 2022).

Fishers occupy a critical but underutilised position in this monitoring gap. As the first and typically only actors present at a bycatch event, they make immediate decisions about handling, release and whether to seek assistance, with direct

consequences for sea turtle survival. Their accumulated experiential knowledge and situational access make them logical contributors to participatory monitoring, yet this capacity has rarely been examined systematically in Asian SSF contexts (Booth et al. 2023).

China presents a particularly underexplored case for participatory bycatch monitoring. It operates one of the world's largest SSF sectors (Kang et al. 2018), spanning coastal environments where sea turtle bycatch is acknowledged but poorly quantified (Ng and Matsuzawa 2021; Lin et al. 2023). Sporadic reports of fishers voluntarily contacting authorities after incidental captures of threatened species suggest latent conservation awareness (Chinese Academy of Fishery Sciences 2025; Xinhua News Agency 2022), but it remains unclear whether this reflects a systematic capacity suitable for structured monitoring. A Citizen Observatory (CO) is a participatory governance structure that combines community-based observation, multistakeholder coordination and reciprocal feedback (Liu et al. 2014). No such

Jia Xue Li and Daphne Z. Hoh contributed equally to this work and should be considered as co-first authors.

© 2026 John Wiley & Sons Ltd.

All rights reserved, including rights for text and data mining and training of artificial intelligence technologies or similar technologies.

framework currently exists widely for bycatch monitoring in Chinese SSF.

This study addresses that gap directly. We report findings from structured interviews with 281 SSF fishers across the Zhejiang coast and Hainan Island, representing China's major SSF areas within known sea turtle distributions, to examine fishers' experiences with sea turtle bycatch, fishers' postcapture handling behaviour and regulatory enforcement perceptions. Based on these empirical findings, we propose a conceptual CO framework that defines structured roles for fishers, associations, experts and government agencies to implement participatory bycatch monitoring in Chinese SSF, with broader relevance for data-poor coastal fisheries across East Asia.

2 | Methods

2.1 | Study Sites

Fieldwork was conducted across two coastal regions: the Zhejiang coast of the East China Sea (ECS) and the Hainan Island coast of the South China Sea (SCS; Figure S1). These regions were selected to represent China's major SSF areas and to capture contrasting fishing contexts relevant to sea turtle bycatch. The Zhejiang coast is characterised by a higher proportion of larger fishing vessels, whereas Hainan Island represents a more diverse small-scale fishing context with greater variation in fishing practices and gear use (Li et al. 2026). We used ECS and SCS as indicative regional labels for the Zhejiang and Hainan Island coasts, respectively; findings should be interpreted in the context of these specific sampling areas rather than as representative of the broader sea regions.

2.2 | Data Collection

Semistructured interviews were conducted between January 2021 and July 2022 across 21 fishing ports and coastal villages (Table S1). Interviews were administered in Mandarin; local interpreters were engaged for elderly respondents with limited Mandarin proficiency. Participants were SSF fishers, defined as operators of small, family-based, labour-intensive fishing activities supplying local markets rather than large-scale commercial harvests (Food and Agriculture Organisation of the United Nations, n.d.). Fishers were recruited using a combined convenience and snowball sampling approach (Heckathorn 2011; Bhardwaj 2019). Each interview lasted 20–30 min. Before each interview, participants were told the study's scientific goals and conservation importance. Participation was voluntary; respondents could decline questions or withdraw anytime. Anonymity and confidentiality were assured. The interview team included university students and staff from an environmental conservation NGO, all of whom attended prefield training to standardise interpretation, response categories and recording procedures.

The interview covered five thematic areas: perceived recent trends in sea turtle populations, exposure to sea turtle bycatch, postcapture handling practices, participation in awareness and outreach programmes and perceptions of sea turtle protection

enforcement. Most items were coded as ordinal or categorical, as fishers rarely keep detailed records. Fishers were permitted to select multiple responses for injury conditions, handling actions and programme participation. Responses reflect fishers' cumulative experiences rather than specific events, unless specified. During interviews, all questions and response options were verbally explained to ensure consistent understanding. The full interview guide, including response option descriptions, is provided in Files S1 and S2.

2.3 | Data Analysis

A total of 423 fishers participated in the interview. Valid responses were from SSF operations, with at least 20% of the questionnaire completed and representing unique vessels. Removal of noncriteria-fitting questionnaires returned 281 valid responses (66.4%), of which 126 were from ECS and 155 were from SCS (File S3). To test for statistical differences in responses regarding handling of injured sea turtles and participation in awareness programmes, Fisher's exact tests with 10^7 Monte Carlo replicates were used, given uneven sample sizes and low expected cell counts in some contingency tables. All other proportions are reported descriptively. All analyses were conducted in R Version 4.4.2 (R Core Team 2024). Minor graphical adjustments were made in Inkscape Version 1.4 (Inkscape Project 2024).

2.4 | Use of AI

The authors used Anthropic's Claude AI and Grammarly's AI to enhance clarity, grammar and language quality. The content was subsequently reviewed and edited to accurately represent the authors' original meaning.

3 | Results

3.1 | Perceived Population Trends and Reported Bycatch

The majority of fishers (82.3%; $n = 190/231$) reported a perceived decline in local sea turtle abundance over the past decade (Figure S2). This pattern is consistent across regions (ECS: 95%, SCS: 72.5%) and reflects conservation concern informed by long-term observation experience. Exposure to sea turtle bycatch was widespread, with 85.4% ($n = 240/281$) of fishers reporting either personal bycatch experience or observations of bycatch involving other fishers throughout their fishing careers (Figure 1a).

3.2 | Injury Status and Postcapture Handlings

Among reported sea turtle bycatch incidents, most sea turtles were reported to be alive and physically uninjured (60.7%); however, in some cases, individuals were caught alive but displaying visible injuries (22.4%). Only a small fraction of respondents (16.9%; Figure 1b) reported catching dead sea turtles. This response distribution indicates that most bycatch

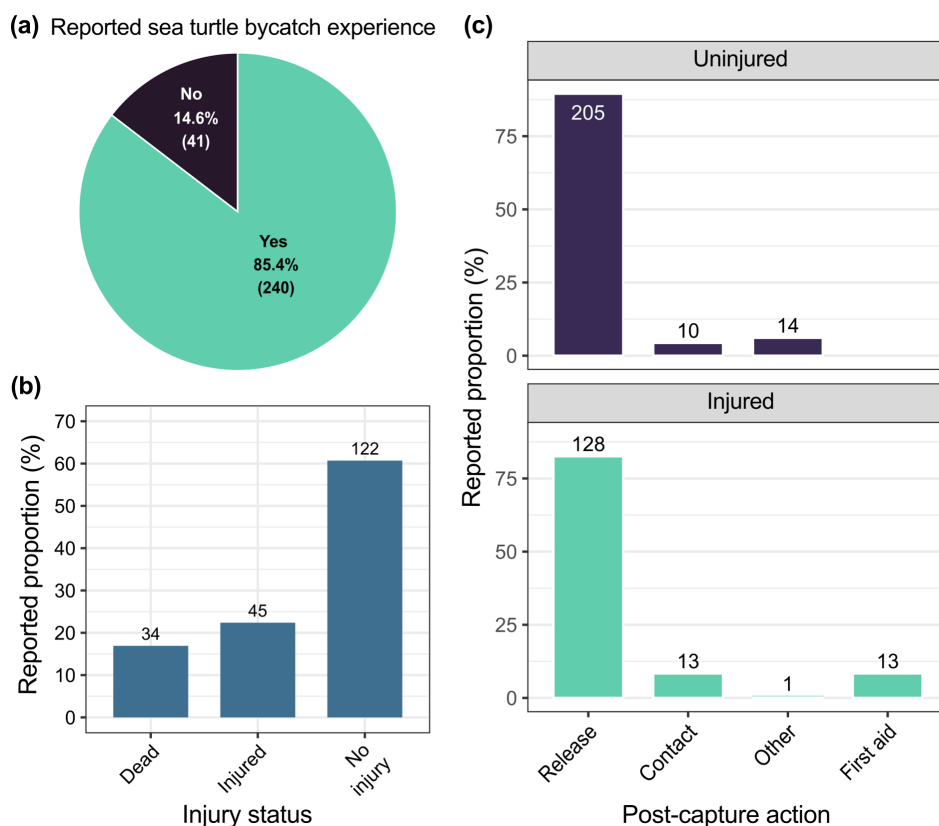


FIGURE 1 | Fisher reported (a) personal bycatch experiences and their observations of bycatch among other fishers, (b) observed injury status of bycaught sea turtles and (c) postcapture actions when fishers encountered alive and uninjured (top) and injured (bottom) sea turtles. Numbers shown in (b) and (c) represent response counts, and respondents could report multiple incidents.

events present a viable window for post-capture intervention. Handling responses reflected this pattern (Figure 1c). For uninjured live sea turtles, immediate release was the near-universal response in both regions (89.5%). When fishers encountered visibly injured sea turtles, release remained the most frequent action overall (82.6%), but regional differences in other postcapture response behaviours were pronounced (Figure S3; $p < 0.001$). SCS fishers more frequently contacted relevant authorities (SCS: 18.8% vs. ECS: 1.1%) and provided basic first aid such as hook removal or wound cleaning (SCS: 10.9% vs. ECS: 6.6%).

3.3 | Awareness, Outreach Participation and Enforcement Perception

Reported fishers' participation in, and awareness of, sea turtle conservation programmes varied significantly between regions ($p < 0.001$; Figure 2a). In the ECS, 35.7% of fishers reported no awareness of any conservation programme, compared with 21.3% in the SCS. Among respondents who reported awareness of conservation activities, lectures or talks were the most commonly reported outreach format in both regions (ECS: 28.6%; SCS: 32.9%), while peer discussions of past illegal-capture or enforcement cases were a notable secondary information source in the ECS (11.9%). Perceptions of enforcement efforts related to sea turtle protection were consistently high across regions (Figure 2b). Most fishers reported that

enforcement efforts had strengthened over the past 5 years (88.7%), with few reporting no change or weakening (9.0% and 2.3%, respectively).

4 | Discussion

4.1 | Fisher Knowledge and Bycatch Experience as Conservation-Relevant Information

Fishers across the surveyed regions reported declines in local sea turtle abundance, reflecting conservation concern grounded in accumulated local ecological knowledge (LEK). Similar LEK-based perceptions of declining sea turtle populations have been documented in multiple countries, including Mexico, India, Malaysia and Colombia (Early-Capistrán et al. 2020; Phillott and Chandrachud 2021; Vásquez-Carrillo and Peláez-Ossa 2021; Yeo et al. 2007), placing our findings within a globally consistent pattern. In the SCS specifically, these perceptions match recent interview-based findings from Hainan Island that show significantly reduced sighting probabilities compared to the previous decade (Lin et al. 2024). Exposure to sea turtle bycatch was high across both regions, regardless of whether fishers reported direct or observed encounters. Nonetheless, the extent of reported exposure in both seas confirms that SSF fishers frequently encounter sea turtles and are thus structurally positioned to assist with systematic monitoring, provided a credible reporting pathway exists.

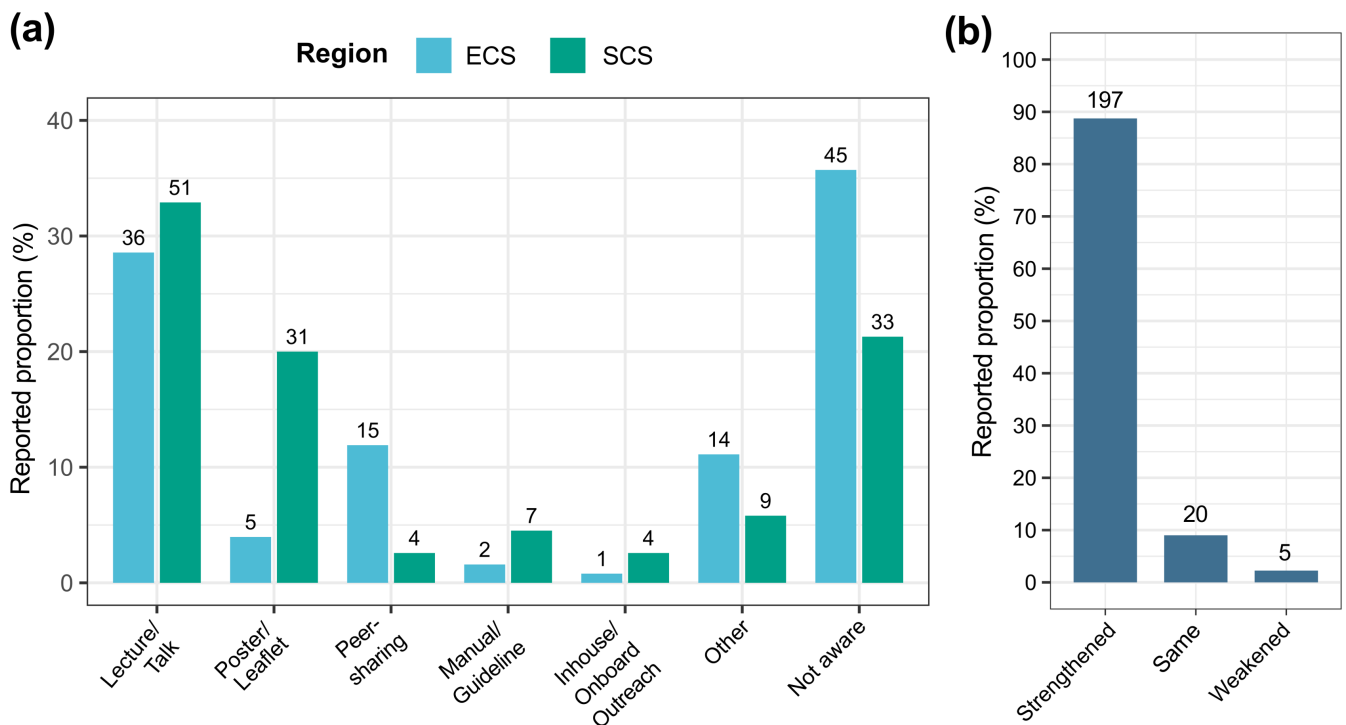


FIGURE 2 | Fisher reported (a) participation in awareness and outreach programmes related to sea turtle conservation and rescue information and (b) perceptions of enforcement efforts in their region over the past 5 years. ECS and SCS denote the East China Sea and South China Sea, respectively. Numbers shown in (a) represent response counts, and respondents could report multiple participations.

4.2 | Postcapture Handling as Evidence of Conservation Capacity

The predominance of live captures across both regions is consistent with findings from other SSF contexts (James et al. 2024; Lin et al. 2023) and establishes that most bycatch events present a viable window for postcapture intervention. The near-universal immediate release of uninjured turtles reflects compliance with national regulations requiring the release of incidentally captured protected wildlife (Ministry of Agriculture and Rural Affairs of the People's Republic of China 2013), but it also represents a systematically missed opportunity: Each release event is an undocumented data point that could inform bycatch monitoring. Immediate release likely also reflects pragmatic considerations, including time constraints, self-protection concerns and uncertainty about what further action is required (Booth et al. 2023; Panagopoulou et al. 2017).

Fishers' responses to injured sea turtles are more revealing. When sea turtles were visibly injured, a small subset of fishers, particularly from the SCS, contacted authorities or attempted basic first aid. This conditional behavioural adjustment reflects patterns seen in other SSF contexts, where fishers increase their intervention effort when the animal's condition suggests that immediate action is needed (José Alava et al. 2019; Kusuma Mustika et al. 2021). SCS fishers reported greater engagement with conservation programmes, which may contribute to increased awareness of available reporting and response channels. In contrast, ECS fishers reported greater reliance on peer discussion of past enforcement cases as a conservation communication pathway, highlighting regional differences in how conservation-related information is shared among fishers.

These differences suggest that conservation information may be transmitted through different mechanisms across regions, although their influence on specific handling decisions requires further investigation. The shared perception of strengthened enforcement efforts across both regions may further encourage compliance-oriented behaviour and support the implementation of a formalised reporting system.

4.3 | A Framework for Participatory Bycatch Monitoring

Collectively, these findings of widespread sea turtle bycatch encounters, demonstrable handling capacity and regional variation in conservation communication and enforcement experiences establish an empirical foundation for a participatory monitoring approach. We propose a conceptual CO framework (Liu et al. 2014) for sea turtle bycatch in Chinese SSF (Figure 3). The CO's core innovation is to reframe bycatch reporting from a regulatory obligation into a structured conservation partnership, converting individual fisher encounters into shared, actionable knowledge (Booth et al. 2023; Liu et al. 2014).

The framework assigns distinct but complementary roles to four stakeholder groups, including fishers, fisheries associations, experts and NGOs and government agencies. Fishers serve as primary data generators and first responders, reporting bycatch events, documenting capture conditions and carrying out post-capture handling and release. Their participation transforms routine fishing operations into a distributed observation network that no formal monitoring programme could replicate at

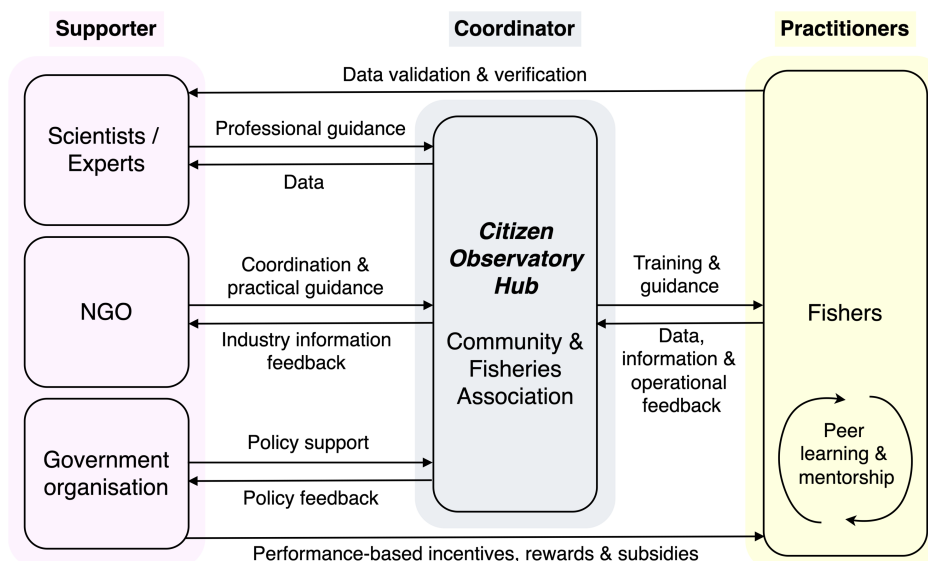


FIGURE 3 | Conceptual Citizen Observatory (CO) framework that integrates sea turtle bycatch monitoring and rescue into Chinese small-scale fisheries, focusing on bidirectional information exchanges.

an equivalent scale or cost. Fisheries associations, which include village fisheries committees, township-level fisher cooperatives and community representative bodies, serve as the coordinating hub of the CO. Their proximity to fishing communities gives them credibility and access lacking to external agencies. They are responsible for aggregating and curating fisher-submitted data, organising training sessions, disseminating materials and mediating communication between fishers and scientific or government partners. Crucially, they also represent fisher interests in policy forums and coordinate participation incentives with government counterparts.

The experts and NGOs provide the technical capacity the CO requires. Scientific support can be drawn from national and provincial fisheries research institutions such as the Chinese Academy of Fishery Sciences and its regional branches, as well as marine biology or fishery science departments at coastal universities and research bodies. These actors design standardised bycatch reporting protocols, provide handling and release training, analyse aggregated data and generate evidence for mitigation and policy learning. Environmental NGOs complement this by bridging the scientific and community sectors, operating rescue-referral hotlines and delivering context-specific outreach tailored to local fishing practices. Government agencies, including local and county-level fisheries administration bureaus operating under the Ministry of Agriculture and Rural Affairs, provide the institutional backbone that legitimises and sustains the CO. They may incorporate CO outputs into fisheries management decisions, establish regulatory standards for bycatch reporting and facilitate performance-based incentives, subsidies or recognition schemes for participating fishers. Their involvement ensures that the CO augments rather than duplicates existing enforcement infrastructure and that fisher contributions are formally acknowledged within governance processes.

These roles are connected through four components: (1) scenario-based training on handling and data documentation;

(2) low-friction reporting via standardised short forms allowing missing or uncertain information to be recorded as unknown, reducing false precision; (3) bidirectional feedback with seasonal summaries and gear-risk patterns sent to fishers, while fishers provide contextual information on fishing operations and bycatch events to scientists; and (4) formal coordination through a multistakeholder steering group that sets data-access rules and agrees on how CO outputs inform management actions. Fishers already attend mandatory annual premoratorium education meetings before the end of the fishing moratorium period, which provide an established platform for initial CO training. Integrating CO participation into this existing institutional routine could minimise the need to create new outreach infrastructure.

The framework is explicitly conceptual and requires empirical pilot testing to evaluate the feasibility and outcomes. Its modular design, featuring a comanagement hub and bidirectional information exchange, may be adapted to other SSF contexts beyond China. This includes applications involving various protected species, gear types or institutional set-ups, providing a replicable governance model for participatory bycatch monitoring in data-limited coastal fisheries.

4.4 | Study Limitations and Future Outlook

This study has several limitations that should be considered when interpreting the findings. Responses collected were self-reported, risking recall bias in bycatch incidents and handling and social desirability bias, as fishers tend to report actions aligned with legal and conservation norms rather than actual practice (Walsh et al. 2002; Brevé et al. 2024). The study is further limited to two coastal regions, and findings may not fully represent the diversity of SSF contexts across China's broader coastline. Finally, the proposed CO framework remains conceptual, with its adoption rates, data quality, governance performance and conservation outcomes having not

been empirically evaluated. Future work should prioritise pilot implementation in collaboration with local fisheries associations to test framework feasibility under real operational conditions, assess fisher participation incentives and refine reporting protocols.

Author Contributions

Jia Xue Li: conceptualization, methodology, investigation, data curation, formal analysis, writing – original draft. **Daphne Z. Hoh:** data curation, validation, formal analysis, visualization, writing – original draft. **Jintao Chen:** conceptualization, writing – review and editing. **Dayi Nie:** investigation. **Min Chen:** investigation, supervision, conceptualization, methodology, writing – original draft, funding acquisition.

Acknowledgements

The authors express gratitude to the anonymous fishers who participated in interviews for this study. We also thank Min Fan, Jing Zhang, Lijun He, Jerry Yixu Qiu and Yuyang Teng for their help with the interviews. The authors used Anthropic's Claude AI and Grammarly's AI to enhance clarity, grammar and language quality. The content was subsequently reviewed and edited to accurately represent the authors' original meaning.

Funding

This research was supported by the Fundamental and Interdisciplinary Disciplines Breakthrough Plan of the Ministry of Education of China (Grant Number JYB2025XDXM904) and the Hong Kong Ocean Park Conservation Foundation (Grant Number AW01.2021).

Ethics Statement

No personal identifying information was collected. According to applicable institutional and regulatory guidelines, this study did not require ethics or permit approval.

Conflicts of Interest

The authors declare no conflicts of interest.

Data Availability Statement

Data are available in the [Supporting Information](#).

References

- Bhardwaj, P. 2019. "Types of Sampling in Research." *Journal of the Practice of Cardiovascular Sciences* 5, no. 3: 157. https://doi.org/10.4103/jpcs.jpcs_62_19.
- Booth, H., M. Ichsan, R. F. Hermansyah, et al. 2023. "A Socio-Psychological Approach for Understanding and Managing Bycatch in Small-Scale Fisheries." *People and Nature* 5, no. 3: 968–980. <https://doi.org/10.1002/pan3.10463>.
- Brevé, N. W. P., K. Urbanovych, A. J. Murk, P. A. M. V. Zwieten, L. A. J. Nagelkerke, and M. Kraan. 2024. "Fishers' Willingness to Report Incidental Bycatches of Endangered, Threatened and Protected Fish Species: The Case of European Sturgeon in the Northeast Atlantic Ocean." *Marine Policy* 162: 106056. <https://doi.org/10.1016/j.marpol.2024.106056>.
- Carpio, A., Y. Álvarez, R. Serrano, et al. 2022. "By-Catch of Sea Turtles in Pacific Artisanal Fishery: Two Points of View: From Observer and Fishers." *Frontiers in Marine Science* 9: 936734. <https://doi.org/10.3389/fmars.2022.936734>.
- Chinese Academy of Fishery Sciences. 2025. "Pearl River Fisheries Research Institute Provides Technical Support for the Release of Accidentally Captured Young Soft-Shelled Turtles in Hanjiang River." <https://www.cafs.ac.cn/info/1051/79712.htm>.
- Early-Capistrán, M.-M., E. Solana-Arellano, F. A. Abreu-Grobois, et al. 2020. "Quantifying Local Ecological Knowledge to Model Historical Abundance of Long-Lived, Heavily-Exploited Fauna." *PeerJ* 8: e9494. <https://doi.org/10.7717/peerj.9494>.
- Food and Agriculture Organization of the United Nations. n.d. "Small-Scale Fisheries." <https://www.fao.org/family-farming/themes/small-scale-fisheries/en/>.
- Heckathorn, D. D. 2011. "Comment: Snowball Versus Respondent-Driven Sampling." *Sociological Methodology* 41, no. 1: 355–366. <https://doi.org/10.1111/j.1467-9531.2011.01244.x>.
- Inkscape Project. 2024. "Inkscape (Version 1.4; e7c3feb1) [Computer Software]." <https://inkscape.org>.
- James, M. C., K. E. Hall, E. P. Bond, S. Sherrill-Mix, and V. Plot. 2024. "Post-Release Survival of Loggerhead Sea Turtles (*Caretta caretta*) Incidentally Hooked in a North Atlantic Pelagic Longline Fishery." *Frontiers in Marine Science* 11: 1392582. <https://doi.org/10.3389/fmars.2024.1392582>.
- José Alava, J., B. Tatar, M. José Barragán, et al. 2019. "Mitigating Cetacean Bycatch in Coastal Ecuador: Governance Challenges for Small-Scale Fisheries." *Marine Policy* 110: 102769. <https://doi.org/10.1016/j.marpol.2017.05.025>.
- Kang, B., M. Liu, X.-X. Huang, et al. 2018. "Fisheries in Chinese Seas: What Can We Learn From Controversial Official Fisheries Statistics?" *Reviews in Fish Biology and Fisheries* 28, no. 3: 503–519. <https://doi.org/10.1007/s11160-018-9518-1>.
- Kusuma Mustika, P. L., E. Wonneberger, K. Erzini, and N. Pasingi. 2021. "Marine Megafauna Bycatch in Artisanal Fisheries in Gorontalo, Northern Sulawesi (Indonesia): An Assessment Based on Fisher Interviews." *Ocean and Coastal Management* 208: 105606. <https://doi.org/10.1016/j.ocecoaman.2021.105606>.
- Li, J. X., D. Z. Hoh, D. Nie, and M. Chen. 2026. "Sea Turtle Bycatch Patterns in Small-Scale Fisheries of the East China Sea and South China Sea." *Biological Conservation* 320: 111926. <https://doi.org/10.1016/j.biocon.2026.111926>.
- Lin, M., M. Liu, H. Ma, S. T. Turvey, and S. Li. 2024. "Using Local Ecological Knowledge to Inform Regional Conservation Prioritization for Threatened Marine Megafauna." *Ocean and Coastal Management* 255: 107268. <https://doi.org/10.1016/j.ocecoaman.2024.107268>.
- Lin, M., M. Liu, S. T. Turvey, and S. Li. 2023. "An Interview-Based Investigation of Marine Megafauna Bycatch in the Northern South China Sea." *Biological Conservation* 286: 110297. <https://doi.org/10.1016/j.biocon.2023.110297>.
- Liu, H.-Y., M. Kobernus, D. Broday, and A. Bartonova. 2014. "A Conceptual Approach to a Citizens' Observatory—Supporting Community-Based Environmental Governance." *Environmental Health* 13, no. 1: 107. <https://doi.org/10.1186/1476-069X-13-107>.
- Ministry of Agriculture and Rural Affairs of the People's Republic of China. 2013. "Regulations of the People's Republic of China on the Protection of Aquatic Wildlife." https://www.moa.gov.cn/ztl/sqxzjcg/sxjcbz/202506/t20250625_6475013.htm.
- Ng, C. K. Y., T. Ishihara, T. Hamabata, et al. 2024. "Overview of the Population Genetics and Connectivity of Sea Turtles in the East Asia Region and Their Conservation Implications." *Frontiers in Marine Science* 11: 1325849. <https://doi.org/10.3389/fmars.2024.1325849>.
- Ng, C. K. Y., and Y. Matsuzawa, eds. 2021. *Sea Turtles in the East Asia Region. MTSG Annual Regional Report 2021.* Draft Report. IUCN SSC Marine Turtle Specialist Group.

Panagopoulou, A., Z. A. Meletis, D. Margaritoulis, and J. R. Spotila. 2017. "Caught in the Same Net? Small-Scale Fishermen's Perceptions of Fisheries Interactions With Sea Turtles and Other Protected Species." *Frontiers in Marine Science* 4: 180. <https://doi.org/10.3389/fmars.2017.00180>.

Phillott, A. D., and P. Chandrachud. 2021. "Fishers' Ecological Knowledge About Sea Turtles in Coastal Waters: A Case Study in Vengurla, India." *Chelonian Conservation and Biology* 20, no. 2: 211–221. <https://doi.org/10.2744/CCB-1455.1>.

R Core Team. 2024. "R: A Language and Environment for Statistical Computing (Version 4.4.2) [Computer Software]." <https://www.r-project.org/>.

Vásquez-Carrillo, C., and M. Peláez-Ossa. 2021. "Insights Into the Ecology of Sea Turtles and the Fisheries of Eastern Guajira From the Traditional Knowledge of Fishermen." *Fisheries Research* 238: 105915. <https://doi.org/10.1016/j.fishres.2021.105915>.

Virgili, M., A. Petetta, G. Barone, D. Li Veli, G. Bargione, and A. Lucchetti. 2024. "Engaging Fishers in Sea Turtle Conservation in the Mediterranean Sea." *Marine Policy* 160: 105981. <https://doi.org/10.1016/j.marpol.2023.105981>.

Wallace, B. P., C. Y. Kot, A. D. DiMatteo, T. Lee, L. B. Crowder, and R. L. Lewison. 2013. "Impacts of Fisheries Bycatch on Marine Turtle Populations Worldwide: Toward Conservation and Research Priorities." *Ecosphere* 4, no. 3: 1–49. <https://doi.org/10.1890/ES12-00388.1>.

Walsh, W. A., P. Kleiber, and M. McCracken. 2002. "Comparison of Logbook Reports of Incidental Blue Shark Catch Rates by Hawaii-Based Longline Vessels to Fishery Observer Data by Application of a Generalized Additive Model." *Fisheries Research* 7836, no. 1: 79–94. [https://doi.org/10.1016/S0165-7836\(01\)00361-7](https://doi.org/10.1016/S0165-7836(01)00361-7).

Xinhua News Agency. 2022. "The Last Yangtze River Paddlefish Rescuer Choked Up: It's Like an Old Friend Has Left Forever." https://www.news.cn/politics/2022-07/23/c_1128856235.htm.

Yeo, B. H., D. Squires, K. Ibrahim, et al. 2007. *Fisher Profiles and Perceptions of Sea Turtle-Fishery Interactions: Case Study of East Coast Peninsular Malaysia*. The WorldFish Center Discussion Series No. 6. WorldFish Center.

Supporting Information

Additional supporting information can be found online in the Supporting Information section. **Table S1:** List of interview locations included in this study. **Figure S1:** Map showing the spatial distribution of interview locations across the East China Sea (ECS) and South China Sea (SCS) study regions. Detailed location names and coordinates are provided in Table S1. **Figure S2:** Fisher reported the perception of sea turtle abundance over the past 10 years. **Figure S3:** Fishers reported postcapture actions for sea turtle bycatch by region. The panel shows the postcapture procedures reported by fishers when they encountered live, visibly uninjured (top) and visibly injured (bottom) turtles. ECS and SCS denote the East China Sea and South China Sea, respectively. Number denotes response count. **File S1:** Interview guide for sea turtle bycatch in Chinese small-scale fisheries. **File S2:** Definition and elaboration of response categories used in the interview guide. **Data S1:** Supporting Information.