



The North Pacific Marine Science Organization

SUMMER 2019

KICK-OFF meeting for PICES SEATurtle project

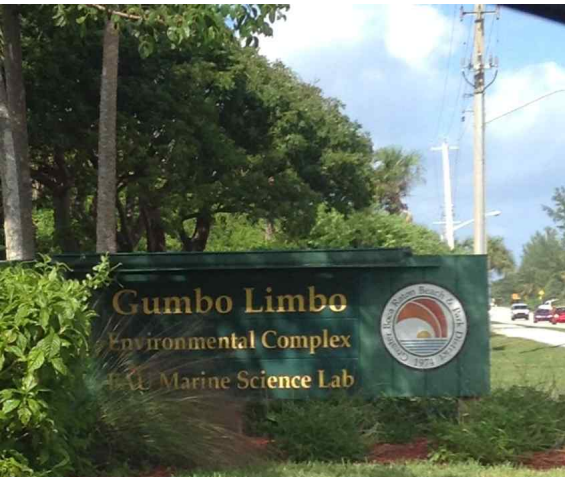


*Two day of networking, fostering community and
identifying opportunities for collaboration*

AUGUST 26 -27 ▪ 2019 10 am – 4 pm ▪ Jeju International Marine Science
Center for Research & Education of KIOST, Seminar Room
2670, Iljudong-ro, Gujwa-eup, Jeju-si, Jeju-do, Republic of Korea

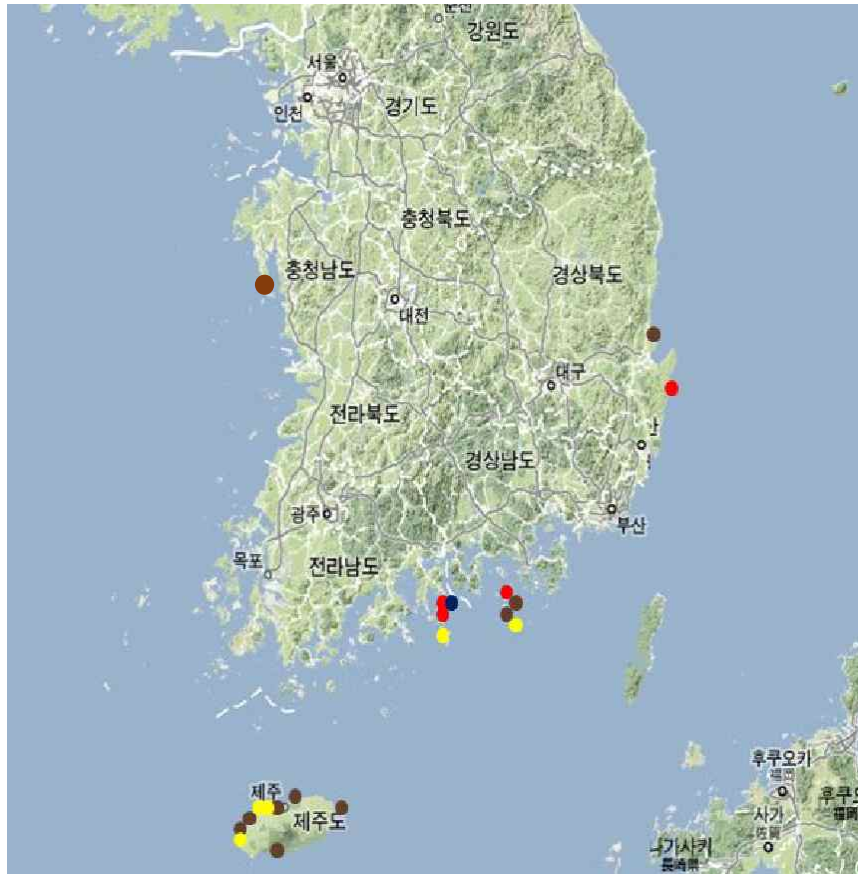
Background for PICES SEATurtle project

KIOST Planning task for conservation of Large Marine Animals (2014)



Sea Turtle Bycatch in Korea

국내 바다거북 혼획·좌초 현황



국내 바다거북 혼획·좌초 현황
(국립수산과학원, 2011)

- 붉은바다거북 Loggerhead turtle (4)
- 푸른바다거북 Green Sea turtle (14)
- 장수거북 Leatherback (1)
- 종 미확인 (7)

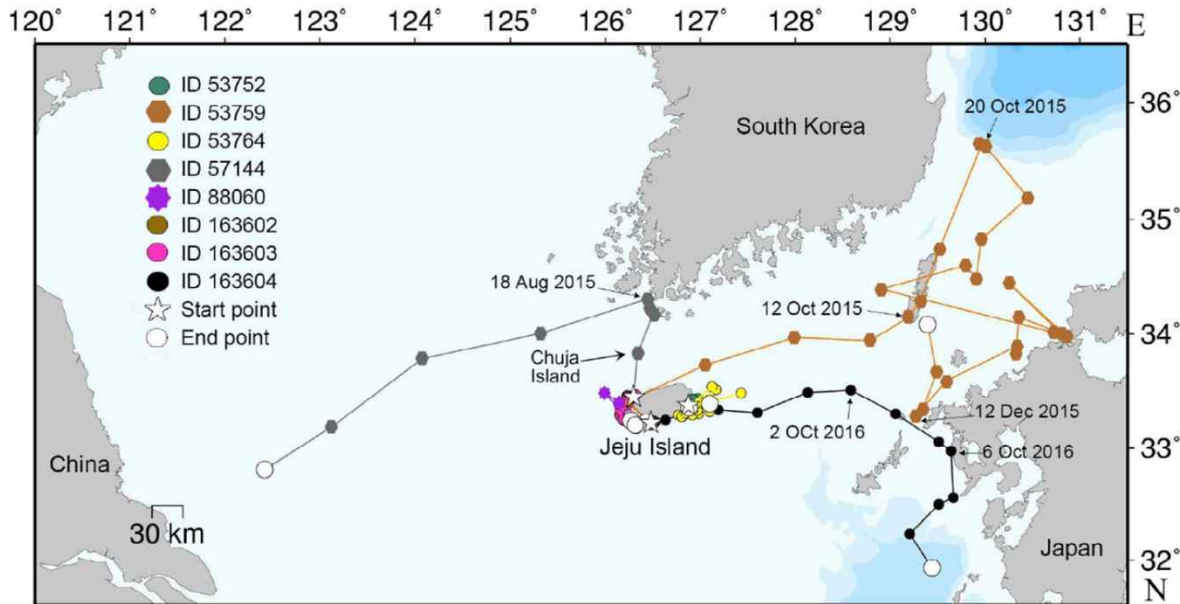
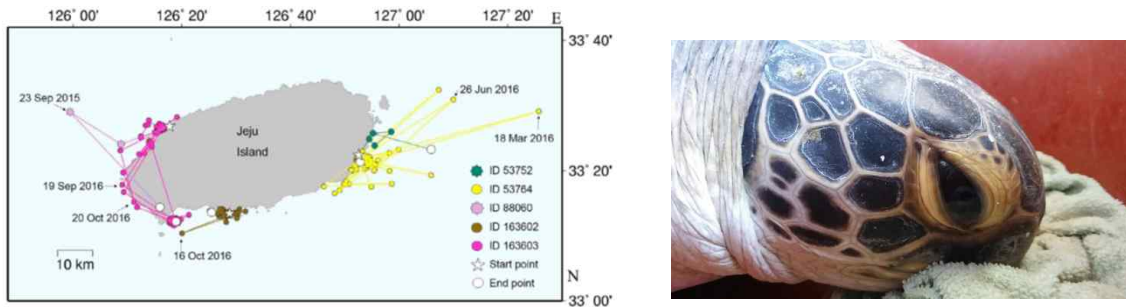


2011년 제주도 연안
바다거북 혼획 및 좌초

★ 직접조사: 7건
★ 간접조사: 9건

Tracking rescued green sea turtles in Jeju Island

제주도 푸른바다 거북의 이동경로 추적



Jang et al. (2018) CCB

PICES Special Project

SEAturtle

Project Goal and Key Questions

- The overall project goal is to research the sea turtle population found in the North Pacific regions centering on Jeju Island of Korea to enhance the understanding of their habitat use and ecology related to anthropogenic activities. The project key questions are: (a) How the sea turtles found in Jeju Island, Korea, Kyusu Island, Japan, and Hongkong, China are connected to the other identified populations in the North Pacific areas and (b) What are the major environmental stressors to the sea turtles in the North Pacific regions.

Duration and Funding

- The maximum project lifetime is 4 years: from the starting date of the project in 2018 to November 30, 2022. Funding for Year 1 (FY 2018), with ending November 30, 2019, is set at CAD 75,000. This amount includes a 13% overhead to be retained by PICES and Inha University to coordinate the project. Total funding for four years of this project is CAD 300,000.

Connection to PICES

- The project is expected to interact with and support relevant activities of PICES Scientific Committees on Human Dimension (HD), PICES Technical Committee on Monitoring (MONITOR), and PICES FUTURE (*Forecasting and Understanding Trends, Uncertainty and Responses of North Pacific Ecosystems*) Program (specifically, Research Theme 1 on "What determines an ecosystem's intrinsic resilience and vulnerability to natural and anthropogenic forcing?").
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Major Initiatives

- The project is proposed to focus on the following two major initiatives:
- Identifying the ecological information of the sea turtle population through the use of advanced tagging technologies, DNA analysis, and stable isotope analysis (*e.g.*, identify habitat use and movement and collect environmental factors through satellite tagging, and identify the sea turtle population through DNA analysis, identifying the tropic ecology using stable isotope analysis).
- Identifying the ecological threats (collect environmental information on the habitat and bycatch/stranding monitoring in Jeju Island) and conducting behavioral experiments (*e.g.*, testing the behavioral response to marine plastic debris) using individuals in the aquarium.

Products and Publications

- A report to be published in the PICES Scientific Report Series that presents the project, its findings and lessons learned;
- A summary of the report to be published as a brochure, possibly in PICES member languages;
- Several newsletter (PICES Press) articles will be contributed during the project period.
- A workshop will be held at the PICES Annual Meeting, or at the International Sea Turtle Symposium for the project collaborators and party who are interested in the project.

Outreaches

- An outreach/promotional Material: create brochures (both physical and online) that emphasize project purpose and research results in PICES member languages and distribute it both locally and globally.
- Public education on sea turtle ecology and marine ecosystem towards local fishermen, all levels of students and the general public.
- Domestic and international seminar and workshops to promote and share the research results.
- Building capacity for coastal sea turtle monitoring by local small-scale fishermen and local NGOs

Year 1(2019) Operational Plan

- March – May, Aquarium research: Response of captive sea turtle to plastic debris (Lotteworld Aquarium)
- June – Aug. Field research in Jeju Island
- July – Aug. Benchmarking for rehabilitation of sea turtles rescued and building collaborative network in the West Coast of America (e. g. Seattle, Monterey, San Diego etc.)
- Aug – Kick-off meeting
- Sept – Dec, Aquarium research
- Oct, PICES meeting

Year 1 Tentative budgets

- ***Budget managed by PICES: 40,000***

- Overhead to PICES (13%): 5,200
- GPS tags and supplies: 9,800
- GPS service fee: 5,000
- International travel of researchers: 20,000

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- ***Budget managed by Inha University: 35,000***

- Overhead to Inha University (13%): 4,550
- Stipend to students: 17,000 (1.5 persons/yr)
- Incentives to researchers: 3,000
- Domestic travel and other expenses of researchers: 8,450
- Research material: 1,000
- Publication of newsletter: 1,000