

9th Asian Wetland Symposium

5-9 July 2021
via ZOOM

- Participation summary
- Outstanding presentations

9th Asian Wetland Symposium

“Voice of Asia: Changes, challenges,
and successful practices”



Participation summary

- 290+ participants
- 23 countries



Opening messages



Keynote presentations



Youth Session (3 July, Saturday)



■ 31 speakers, 8 sessions

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"Voice of Asia: Changes, challenges,
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Outstanding Presentations

- 8 outstanding oral presentations
- 3 outstanding poster presentations

Outstanding oral presentations Awardees



Yuki Arai



Shakila Kayum



Maria Retchie Alaba



Xiaojing Gan



James McGill



Kate Gorringer-Smith



Ivy Lambios



Ritesh Kumar



Outstanding poster presentations Awardees

Atsushi Tanabe

Hye-Ji Oh

Ran-Young Im

Selection of estuaries for waterbird habitat conservation through complementarity analysis on class A river in Japan

Atsushi Tanabe*, Tomoko Minagawa**, Akihiko Koyama***, * Asia Air Survey Co., Ltd., ** Faculty of Advanced Science and Technology, Kumamoto Univ., *** Fishery Research Laboratory, Kyushu Univ.

1. Background and Objectives

Protection Area for Bird habitat
 Wildlife Protection Areas: Japan
 Protection and Control of Wild Birds and Mammals and Hunting Management Law
 Ramsar site: Ramsar Convention
 Special Protection Area: EU Directive on the Conservation of Wild Birds, etc.

The Wildlife Protection Areas in Japan
 Approximately 67% of the tidal flats where observing many shorebirds are unprotected (Mikami et al., 2012).
 Approximately 270 sites (approximately 4,600 ha) cover tidal rivers, i.e., estuaries.
 → Setting effective protection areas is important.

Objectives
 The aim of this study is;
 Selecting high priority conservation estuaries in Japan
 Evaluating the effectiveness of the Wildlife Protection Areas

2. Materials and Methods

① The usage database and target estuaries

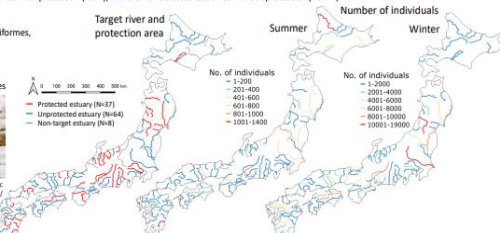
Database: National Censuses on River Environments managed by the Ministry of Land, Infrastructure, Transport, and Tourism, Japan (MUT).
 Using fourth round survey results (2006 ~ 2015).
 Range of estuary: Tidal reach of each river the basis of the River Improvement Plan and the River Maintenance Plan by MUT or elevation and tide level.

② Complementarity analysis for selecting the estuaries and analysis

The complementarity analysis: Marxan (ver. 1.8).
 The number of individuals of each species in each season.
 Species penalty factor (SPF): set at 100 for species listed as NT or higher in the Red Lists and 50 for the other species.
 Conservation target value: NT or higher Red list species was set at 20% of the total number of individuals, and other species was set at 10%.
 Repeated 1000 times, and the selected rivers were determined according to the best solution.
The GAP analysis between the selected estuaries and the present protection areas.
 Kappa coefficient by R (ver. 3.6.3) of the selected estuaries with protection (S-P), the selected estuaries without protection (S-NP), the non-selected estuaries with protection (NS-P), and the non-selected estuaries without protection (NS-NP).

③ Target bird species

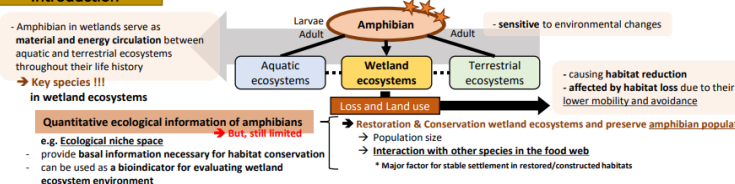
All observed waterbirds (Matthews 1993): Grebes, Pelecaniformes, Ciconiiformes, Anseriformes, Charadriiformes, Sulfuriformes, and Gruiformes
 Summer: 69 species of 7 orders and 12 families. Red List: 21 species
 Winter: 77 species of 7 orders and 13 families. Red List: 24 species



Creating alternative habitats from a wetland ecosystems perspective: focused on the ecological niche space of endangered frog species

Hye-Ji Oh*, Kwang-Hyeon Chang*, Ju-Duk Yoon**, Kyung-Hoon Shin***, Su-Gon Park****, Min-Ho Chang*****
 *Department of Environmental Science and Engineering, Kyung Hee University, Republic of Korea, **Research Center for Endangered Species, National Institute of Ecology, Republic of Korea, ***Department of Marine Sciences and Convergence Technology, Hanyang University, Republic of Korea, ****Invasive Alien Species Research Team, National Institute of Ecology, Republic of Korea, *****Environmental Impact Assessment Team, National Institute of Ecology, Republic of Korea

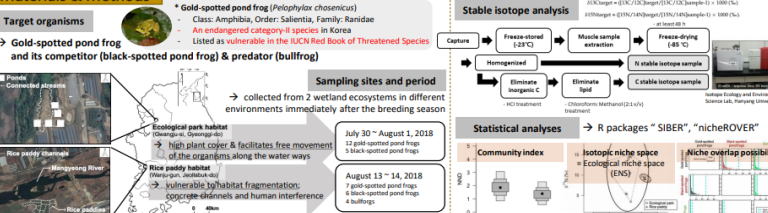
Introduction



Objective

To provide quantitative information on biological interactions that can be used fundamentally to restore wetland habitats and establish alternative habitats for endangered frogs in South Korea

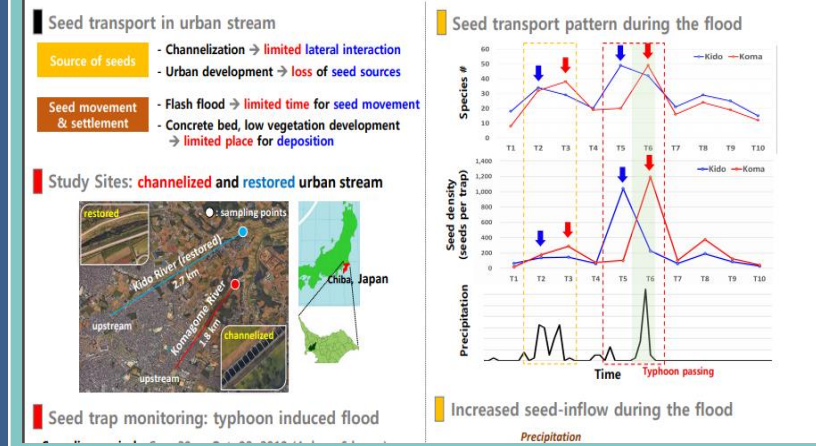
Materials & Methods



Seed transport pattern during the typhoon-induced flood in channelized and restored urban streams

Ran-Young Im*, Ji Yoon Kim**, Gea-Jae Joo***, Jun Nishihara**

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 **Center for Climate Change Adaptation, National Institute for Environmental Studies, Japan
 ***Department of Biological Sciences, Pusan National University, Republic of Korea



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- **AWS Networking on Friday (9 July) at 16:00 (KST)**
- asianwetlandsymposium.org/aws9/zoom/



Thank you !

