

(tear here)

## 22 YEARS IN THE MAKING!

Dear Friends of Spoonbills:

2019 marks our 22nd year as a thriving grassroots organization. While we continue to expand our reach throughout the Pacific Rim, we identify critical wetlands and threatened Spoonbill populations that continually need our attention, are making new friends, and deepening our connection to communities. We hope you will renew your annual membership to SAVE, or join us if you don't already have a membership. Thank you for your support!

\_\_\_\_\_ I would like to renew my membership for \_\_\_\_\_ (\$25, 50, \$100, \$250, \$500)

\_\_\_\_\_ I would like to join SAVE as:

- \_\_\_\_\_ a sponsoring member of SAVE for \$25
- \_\_\_\_\_ a contributor to the spoonbills' nest egg for \$50
- \_\_\_\_\_ an adoptive grandparent of a spoonbill for \$100
- \_\_\_\_\_ an adoptive parent of a spoonbill for \$250
- \_\_\_\_\_ adopter of an entire spoonbill family for \$500

Please make your check payable to SAVE/EII and return it to SAVE International, c/o Earth Island Institute, 2150 Allston Way Suite 460, Berkeley, CA, 94704. You can also donate through the SAVE website: [saveinternational.org/get-involved/donate/](https://saveinternational.org/get-involved/donate/)

Name: \_\_\_\_\_  
Mailing Address: \_\_\_\_\_  
\_\_\_\_\_  
Phone Number: \_\_\_\_\_  
E-mail Address: \_\_\_\_\_



## CONFLICT OF GREENS VIDEO IS OUT!

Researchers from SAVE International and National Cheng Kung University have been working on documenting and finding resolution to the conflict between renewable energy development and wetland conservation in Southwestern Taiwan since 2016. This video provides an introduction to this research, how the conflict came to be, and what alternative renewable energy options exist. Please check SAVE's website for the web link or by visiting: <https://bit.ly/2DT9AzY>

-BY ADRIENNE DODD

## SOLAR DEVELOPMENT VS. WETLAND "WISE-USE" IN TAIWAN

Budai Salt Pan Wetland, located in Chiayi County, Taiwan, is a wetland of national importance, and a critical habitat of the endangered Black-Faced Spoonbill. In Taiwan, every wetland of national importance must have a Conservation and Utilization Plan to define the wetland's "wise-use" and functional zoning, essentially defining what activities are allowed to occur in that wetland. The researchers in charge of a wetland's Conservation and Utilization Plan are able to suggest inclusion of neighboring lands into the Plan if there is evidence that they are ecologically important. Dr. Hsiao-Wen Wang and her research team at NCKU (National Cheng Kung University) were the ones in charge of Budai Salt Pan Wetland's Conservation and Utilization Plan, and have been doing research in the wetland since 2011. Dr. Wang's team partnered with other research groups and local stakeholders to conduct ecological and

hydrologic surveys and experiments and to hold community workshops in order to better understand the current and historic issues related to the wetland as well as the ecosystem services the wetland provides. Due to the hydrologic and ecological importance of the 10th, 9th, 8th, and Old 5th Salt Pans located to the south of Budai Salt Pan Wetland, these areas were included in the Conservation and Utilization Plan. Some of the wise-use designations the research team defined



**The area of the failed Budai Salt Pan Wetland Conservation and Utilization Plan outlined in red, including Budai Salt Pan Wetland (wetland of national importance), 10th Salt Pan, 9th Salt Pan, 8th Salt Pan, and Old 5th Salt Pan. The approximate areas where solar facilities are being constructed are outlined and shaded in black.**

Image Credit/ Source: Adrienne Dodd using ArcGIS®, Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community





**Images of Black-Faced Spoonbills and other birds foraging and resting in Budai 8th Salt Pan in January 2017 and September 2018**  
Image Credits: Tsai-Chou Chiu (top) and Adrienne Dodd (bottom)

included operating water gates for flood mitigation and bird habitat creation, cycling of water with neighboring fishponds, as well as opening of certain areas for walking, birding, and fishing.

In 2016 the government announced plans for solar development to occur in the 10th, 9th, 8th, and Old 5th Salt Pans. After protests from researchers, local stakeholders, and environmental NGOs, these plans were changed to only include the 8th Salt Pan and a small section of the 9th Salt Pan. Since the 8th Salt Pan was already included in the Conservation and Utilization Plan of Budai Salt Pan Wetland, the government needed Dr. Wang's research team to include solar development as a wise-use of the 8th Salt Pan in order to continue with the development project. Due to its important hydrologic and ecologic functions, for instance being a recorded habitat of about 8% of the world population of Black-faced Spoonbills, and providing flood mitigation and water cycling functions to neighboring fish ponds, the research team was unable to find scientific reasoning to support solar development being a wise-use of this habitat.

On many occasions, various government officials informally requested Dr. Wang to add solar development as a wise-use of the 8th salt pan, or exclude the salt pan from the plan altogether. In 2017 the research team conducted a



**Budai 8th Salt Pan under Construction in January 2019**  
Image Credit: Adrienne Dodd

new ecological analysis of the wetland in order to have a quantifiable approach to identify whether any areas inside the wetland were suitable to be considered for solar development. Their analysis was based on the area's ecosystem services, ecological value, and possibility for restoration. This analysis found two locations that could be considered for solar development, and renewable energy development was added to their wise-use designation. However the 8th Salt Pan had too high a value and was found to not be suitable, therefore renewable energy development was not included as a wise-use. The Conservation and Utilization Plan for Budai Salt Pan Wetland was set to officially pass in 2018, but was not accepted by the government. In the end, an official request was sent to Dr. Wang and her team to take the 10th, 9th, 8th, and Old 5th Salt Pans out of the plan altogether. Dr. Wang's research team and local stakeholders, including fish farmers, residents, and village leaders, signed a letter explaining the importance of these salt pans, and why they should not be taken out of the management plan. Dr. Wang's research team made the hard decision to resign from this project as the government would not allow them to continue without explicitly acting against their scientific findings. Construction in the 8th Salt Pan has now begun, and the Black-Faced Spoonbill has lost a critical piece of habitat.

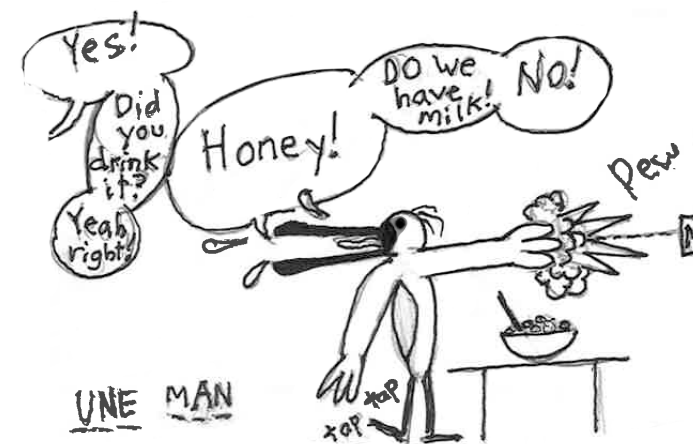
-BY ADRIENNE DODD

issue of *Spoonbills Speak* ("Can Replicating Mai Po save the Spoonbill?", Vol. 19), SAVE's delegation to Hong Kong enjoyed a tour of Mai Po during our visit in December 2016 and saw Black-faced Spoonbills there. SAVE has long looked to Mai Po as an example of effective environmental planning, thanks to its listing as a "wetland of international importance" under the Ramsar Convention and its management by the World Wide Fund for Nature. The Hong Kong Bird Watching Society, which organizes the annual BFS Census, has tallied roughly 10% of the world BFS population at Deep Bay (includes Mai Po) for the last few winters, making it the third-most-populous site in the BFS flyway, and the largest outside Taiwan. The numbers at Mai Po and Inner Deep Bay rose dramatically for years until 2010 (nearly 500), dropped for a few years, spiked at 411 in 2015, and then declined somewhat to 350 in 2018. Although the BFS population has grown overall as the birds populate other sites, Mai Po may have reached its carrying capacity: "the quality of this wintering ground [Deep Bay] is also declining," the International Black-faced Spoonbill Census 2018 said. A November 2018 article in the *New York Times* highlighted the pressures to build new apartment housing at Nam Sang Wai, an unprotected part of the wetlands along Hong Kong's northwestern edge. SAVE has offered help to our Hong Kong colleagues in proposing an alternative plan.

-BY DEREK SCHUBERT

## SPOONBILL COMIC

Like birds everywhere, this spoonbill super hero in Phoenix, Arizona worries about where his next meal will come from. Habitat loss is the greatest threat to spoonbill survival. Most worry about wetlands; urbane ones worry about milk.



**Spoonbill: Got Milk?**  
Cartoon Credit: Atticus Hester

## UPCOMING HOPES CONFERENCE IN EUGENE, OREGON

Calling all SAVE Alumni: Come join a contingent of SAVE International members attending the 2019 Oregon HOPES (Holistic Options for Planet Earth Sustainability) Conference in Eugene, Oregon! Hosted by the University of Oregon's Ecological Design Center, the conference will run Wednesday April 10th through Saturday April 13th. This year's conference theme of "Destructive Idealism" will discuss the importance of pledging resiliency through conversations that promote a transcendence of scales, anticipates challenges, and pursues a dynamic and equitable future. SAVE members are excited to brainstorm sustainable solutions and they invite the many Oregon SAVE Alumni to participate in the discourse.

Follow the HOPES website for details as they emerge: <https://hopes.uoregon.edu/>

-BY FIONA CUNDY



## LETTER OF POO, AN ILLUSTRATED STORY

In 2018 longtime collaborator and SAVE Executive Committee member Satoru Matsumoto published his book *Letter of Poo*. It is a beautifully illustrated and engaging treasure - in four languages (Japanese, English, Korean, and Chinese). The book explores the issues that migratory birds and their habitat face, especially the endangered Black-faced Spoonbill.

You can order this book by going to this page on Matsumoto's Wetland Forum website: <https://wetland-forum.jimdoofree.com/>

-BY MARCIA MCNALLY





Students at a bird-banding station in 2018  
Photo Credit: Denis Irinyakov

## FINALLY CONNECTING WITH RUSSIA

In 2017 I met SAVE and Team SPOON members at a symposium on ecological democracy at Tokyo Tech. It is there I learned about spoonbill projects along the bird's flyway which included sites in Russia. I started an e-mail correspondence with the Russian Bird Conservation Union NGO people I know. They led me to the Russian BFS researcher Yuri Shibaev from Institute of Biology and Soils, Russian Academy of Sciences. Dr. Shibaev reported that the Russian researchers are aware of the International Single Species Action Plan for the Conservation of the Black-faced Spoonbill (*Platalea minor*) and that Russia has been included in the plan for action since 2010. However, it seems no action on education, outreach, or exchange has been taken.

I went to Vladivostok and met local ecologists and ornithologists working at a bird-banding station. First I met with Rada, daughter of Sergey Surmach (one of the best-

known Russian bird biodiversity researchers and founder of Amur-Ussuri Center for Avian Diversity). She explained to me that the spoonbills found in Russia are in small numbers, inhabiting the remote islands in the Far Eastern Marine Nature Reserve. The reserve is all-but inaccessible and has high protection status (but still possible to visit and by chance see the birds). Moreover, the population is very unstable and hard to monitor, so there is no opportunity for a broad-based bird watching campaign or popularization of the spoonbill population there.

Dr. Olga Valchuk (Institute of Biology and Soils, Russian Academy of Sciences, Ornithology lab) brought me to the Litovka bird-banding station near the Vladivostok. Dr. Valchuk agrees that the spoonbill is not good for public education in Russia because it cannot be observed. However, there are other birds flying across the Japan Sea, which they are banding and popularize with visitors who are welcome during the banding season.

I hope this information may lead to a SAVE visit to Russia to create a dialogue and collaboration on bird biodiversity research and conservation across the Pacific under the flag of the Black-faced Spoonbill.

-BY MARIIA ERMILOVA WITH MARCIA MCNALLY



Black-faced Spoonbills at Mai Po Nature Reserve in Winter 2016  
Photo Credit: Cristina Bejarano

## NEW THREATS AT MAI PO NATURE RESERVE

Mai Po Nature Reserve in Hong Kong survives as a haven for wintering spoonbills even while Shenzhen has frenetically grown across the bay, but the unprotected wetlands adjoining Mai Po are facing heavy pressure from developers. As we reported in the Spring 2017

## SCIENCE AS BRIDGE IN COMMUNICATING NEEDS AND IMPLEMENTING CHANGES TOWARDS WETLAND CONSERVATION

A paper highlighting successes of participatory action research (PAR) for sustainable water management in Budai Salt Pan Wetland has been published in the journal *Wetlands* by Dr. Hsiao-Wen Wang's team at NCKU. SAVE has been a partner in promoting participatory wetland management and conservation in Taiwan for over 20 years, and we are excited to share this academic development with SAVE, the stakeholders of Taiwan, and the global academic community. Budai Salt Pan Wetland is an important habitat of the Black-faced Spoonbill but has a history of mismanagement. Due to the lack of effective communication among stakeholders, whether they be local fishermen, government officials, environmentalists, or researchers, there is a history of conflict and misunderstanding regarding wetland issues in Taiwan. The local stakeholders' voices are often overlooked and the government policy is often not clearly understood.



In Budai local people and all relevant government agencies were invited to attend a community meeting to create an environment based on transparency and encourage communication between stakeholders. Local people were also invited to become partners in the monitoring surveys with the academic team, which empowers them to conduct science-based, long-term management plans for the wetland.  
Photo Credits: Hsiao-Wen Wang's research team

This paper describes how science and PAR can be used as a tool to create a partnership and open lines of communication with stakeholders. The successful implementation of a participatory water management plan in Budai Salt Pan Wetland, which aids in flood mitigation as well as habitat restoration, shows how scientific analysis that includes local knowledge helps to create better management plans, as well as empower local people to get involved in implementing Taiwan's Wetland Conservation Act. Meanwhile, having sound scientific research as backing and support allows us to establish a meaningful relationship with the local government and put the plan into action. Overall, using science as a focal point in the discussions can help to direct the conversation and bridge gaps to find a balanced solution that may not have been considered before.

-BY PIN-HAN KUO

Reference: Hsiao-Wen Wang, Adrienne E. Dodd, Pin-Han Kuo, Ben A. LePage (2018). "Science as a Bridge in Communicating Needs and Implementing Changes towards Wetland Conservation in Taiwan." *Wetlands*, 38(6): pp 1223-1232. <https://doi.org/10.1007/s13157-018-1096-4>



Use of simple, readable visual aids like maps and cards are important tools to engage stakeholders participating in discussion.  
Photo Credits: Hsiao-Wen Wang's research team





Private solar-shrimp mixed-use farm in Cigu District of Tainan City, Taiwan in March 2018  
Image Credit: Adrienne Dodd

## CIGU RESIDENTS PROTEST SOLAR DEVELOPMENT ON FISH FARMS

Amidst the push for renewable energy development in Taiwan, developers have bought or rented about 1200 hectares of fish pond land in Cigu (or Chiku) District of Tainan to construct solar facilities, paying 10 times what fish farmers normally pay. While some landowners have accepted this as an opportunity, other landowners turned down such offers as they, along with other local people and fish farmers, are worried about the negative impacts such developments may have on the region, impacting fish farmers' livelihoods, land prices, as well as water quality and wildlife. In order for developers to use aquaculture land for solar energy production, the government must agree to grant them a mixed-use permit, which would give them permission to build on 40% of the land, while 60% would have to continue to be used as productive fishponds.

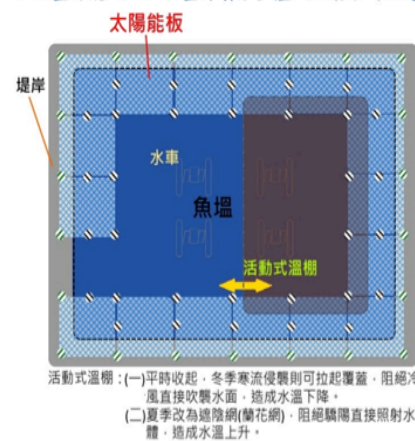
On July 9th 2018 a group of about 80 people from Cigu gathered in Taipei to protest these developments and ask the government to protect fish farmers' livelihoods. Some believe such mixed-use is not always appropriate. One landowner interviewed said that because the water system for the fish ponds in this region is connected, any pollution from solar developments in one fishpond could cause problems to all of the other interconnected fishponds. Protesters argue that such a high-risk system should not be the first solar-fish pond mixed-use to be attempted. Fish farms in this area of Tainan are also the only ones along Taiwan's west coast that do not pump ground water as part of their operations, which helps to mitigate seawater infiltration and land subsidence. Protestors believe such fishponds should be protected, and not allowed to be considered for mixed-use development.

Another concern brought up by protestors is the possible impacts on the Black-Faced Spoonbill, which use fishponds in the region for foraging. Historically, fish farmers in this area have been encouraged by the government to follow bird-friendly practices in order to protect the Black-faced Spoonbill. Now, fish farmers feel betrayed that plans are going forth for solar-fishpond mixed-use without proving such development will not cause harm to the spoonbill. Protestors from Cigu made six demands of the government:

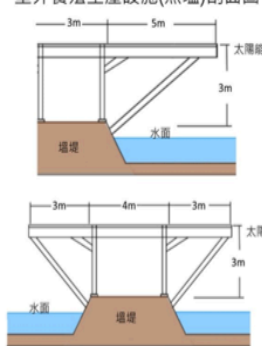
1. Starting from the protection of the endangered Black-Faced Spoonbill, renewable energy development must exclude foraging areas of the Black-Faced Spoonbill.
2. Appeal to the Council of Agriculture (COA) to focus on national conservation, and ensure that renewable energy development does not occur on no-groundwater-pumping aquaculture lands.
3. Appeal to the COA to increase the incentive policy for renewable energy development on aquaculture lands where intensive groundwater pumping occurs in order to reduce subsidence and facilitate the rehabilitation of the country.
4. Amend the "Coastal Zone Management Act" so Cigu coastal aquaculture areas, which are non-urban land types belonging to the "seaside roads" zone, are not allowed to apply for "use of land change" in specific areas or send letters to relevant departments in order to avoid the opportunistic attitude of the solar industry.
5. Sites planned to be developed with solar shall be subject to the consent of the owner of the adjacent land in order to comply with the provisions of Article 27 of the Green Energy Regulations, which say that developments shall not affect the agricultural use and production on adjacent land.
6. When a project related to solar development applies to the government for consideration, the local government will hold a briefing/community meeting with the residents of the administrative area to ensure that local residents have a mechanism for participation.

-BY ADRIENNE DODD

地面型綠能設施結合室外養殖生產設施(魚塭)示意圖



室外養殖生產設施(魚塭)剖面圖



Diagrams from the Council of Agriculture's website for possible fishpond-solar mixed-use construction

Source: <https://age.coa.gov.tw/index.php?theme=ws&id=2506776>



Long-time SAVE members in attendance include John Liu, Wanchih Yin, Randy Hester, Marcia McNally, Jeff Hou, Masato Dohi, Wenling Tu, Yekang Ko, Tamesuke Nagahashi, and participants from Taiwan, Japan's Team SPOON, South Korea, Ecuador, and Denmark.

Photo Credit: Wenling Tu

## POW WOW IN SINGAPORE: CONFLICT OF GREENS

In December SAVE members celebrated their 21st anniversary at the Great Asian Streets Symposium (GASS) held at National University of Singapore. It was a double celebration – one of the symposium hosts, Pacific Rim Community Design Network, marked its 20th anniversary, with founding members John Liu and Randy Hester giving keynote speeches on the past, present, and future of participatory design. SAVE Executive Committee member Yekang Ko led a working group session titled "Saving Spoonbills in the Era of Conflict of Greens," to discuss the tough challenges SAVE has faced in recent years. At the top of the list is the issue that SAVE calls "Conflict of Greens." Along its flyway, habitat critical to the Black-faced Spoonbill and hundreds of thousands of shorebirds (many of them endangered) has been threatened by alternative energy development, such as commercial-scale solar and tidal power. This has been a particularly urgent issue in Taiwan and South Korea, where sadly no policy debate has been held to address the land use conflicts inherent in these "green" goals. How to address these challenges is central to SAVE's research, actions, and local and international collaborations. We are adding a "Conflict of Greens" campaign page on the SAVE website.

-BY YEKANG KO

## FLIGHT OF SHOREBIRDS SYMPOSIUM

In September, SAVE was invited by Birds Korea and Korea Federation for Environmental Movement (KFEM) to attend the International "Great Flight of the Shorebirds" Symposium of the Hwaseong Tidal Flat. Located 40 KM south of Seoul, Hwaseong Tidal Flat belongs to the former Namyang Bay, which was one of the largest mudflats in the East Yellow Sea before it was mostly "reclaimed" (filled). A 9.81 KM long seawall (started in 1991 and closed in 2006) now divides the wetland into two parts: the mudflat outside the seawall, and Hwaseong Lake and the adjacent reclamation area inside. Although hugely disturbed, Hwaseong

Tidal Flat serves as one of the most significant habitats for many species, including the Black-faced Spoonbill and Black-tailed Godwit, a great number of other shorebirds, and its "signature species" the Great Knot. These birds mostly move between two zones based on the tide condition.

The purpose of the symposium was to raise both the national and international awareness of the significant eco-value of Hwaseong Tidal Flat. Hwaseong city government, NGOs, and local residents would like to find ways to stop potential threats such as a proposed air force base and expanded industrial port, in order to protect the habitat. They recognize eco-tourism and environmental education as part of the vision for the future of Hwaseong, and are eager to learn from other habitat conservation efforts, which share similar experiences. During the symposium, SAVE member Wanchih Yin gave a talk titled "What we can learn from SAVE's past work? ---Using Tainan and Songdo as examples". In the presentation, Wanchih talked about how SAVE successfully defeated Binan, and yet failed on Songdo's case using a similar strategy. She emphasized that it has been proven in Tainan that not only it is feasible to achieve both the ecological and economic benefits, but also that during the process, local community identities would transfer and have much tighter connection with the wildlife and natural environment. Wanchih concluded that a good alternative master plan with local wisdom input is always the key to win the battles. Other than SAVE, 12 other speakers gave talks covering successful stories and similar crises in South Korea, Australia, China, and Japan. Numerous ideas, thoughts, and strategies were exchanged at the symposium and at the end of the symposium all participants signed the Hwaseong Declaration showing the strong will of pursuing a different future. During the in-depth site visit, Wanchih also met about 30 BFS and was very happy to say hi to them right before they took off on the long journey south to Tainan and other winter habitat.

After learning about Hwaseong at the symposium and discussing it with SAVE members, SAVE has committed to take on the Hwaseong Tidal Flat as a project for the environmental planning studio (LA 205) at UC Berkeley in the current spring semester. Students in the class will study the environmental and political condition in Hwaseong, and generate a creative, solid alternative master plan, which will be presented to people in Hwaseong, in hopes of initiating a conversation with different stakeholders. It will be a new chapter for SAVE and hopefully we shall be able to contribute on saving the spoonbill and many its friends in Hwaseong.

-BY WANCHIH YIN



Symposium Participants  
Photo Credit: EEAFF