



Gaomei Wetland

Crises

Despite its popularity and beautiful scenery, Gaomei Wetland faces grave ecological crises. Problems include hindered *Bolboschoenus planiculmis* community due to reclamation, invasion of exotic species *Spartina alterniflora*, and roadkill of terrestrial crabs on levee roads.

Rapid reclamation of the wetlands

The groin effect of the northern sand levees of Port of Taichung has contributed to the formation of the Gaomei Wetland, whereas the bevel structure of the Gaomei No.2 embankment is prone to accumulating waste, mud and sand due to tide and current directions. This in turn aggravates reclamation and causes the *Bolboschoenus planiculmis* community, originally found right next to Gaomei No.1 embankment and FanTsaiLiao embankment, to gradually move northwards and westwards since 1997. The *Bolboschoenus planiculmis* population that originally grew by the Gaomei No.2 embankment has been moving westwards and southwards. The *Bolboschoenus planiculmis* in Gaomei Wetland is struggling with habitat loss.

Invasion of Exotic Species

The coastal plant *Spartina alterniflora* is a recognized costal invasive species expanding rapidly through lateral budding from rhizomes. Its tight underground root system causes soil to harden and hinders growth for *Bolboschoenus planiculmis* and reed. Its invasion into benthic composition, along with changes in the waterfowl population structure, has contributed to biodiversity loss. Since its invasion into the Gaomei Wetland in 2007, its growth area has been rapidly expanding and has exceeded 3 hectares by 2016, posing a severe threat against the local ecosystem and biodiversity. Since the best time to remove an invasive species is during its early invasion, the Taichung City Government has started a planned removal of *Spartina alterniflora* to protect the biodiversity and ensure the ecological integrity of the area.

Roadkill of Crabs

The traffic planning around the Gaomei Wetland and type of dyke foot make it difficult for crabs to cross the dykes and lay their eggs on the beach. Instead, the crabs are often caught on levee roads and killed by vehicle traffic of people leaving from sunset viewing. The reproduction period of local land crabs falls in summer, around the lunar spring tide, three days from new moon and full moon. The roadkill hotspots are located mainly on the north of FanTsaiLiao embankment, with nearly 50% of the female crabs die of traffic and attack by ants each night, meaning the local land crab population is under intense pressure. In order to fulfill the concept of wildlife area conservation, it is necessary to review the traffic planning around the wetland and redesign the dyke foot with eco-friendly engineering.

TRAFFIC & METEOROLOGICAL



Bus Routes

Take Train to Qingshui Railway Station, then take Taichung Bus to Gaomei and get off at the last stop, and walk 5 minutes to there.

※The information of other buses, please go to the link below:
Transportation Bureau of Taichung City Gov.
(<http://citybus.taichung.gov.tw/cms/en/>)



Drive by yourself

① Get down on National Highway No.4 ④ and drives to the West side→ to Taichung Harbor→ Taiwan Road 17 ⑰ → Taiwan Road 61 ① → turns right to Gaomei Road→ Turn left until the first traffic light when arrived the crossing, move straight and turn right on the windmills of wind power→ arrived south bank of Gaomei Wetland→ Qingshui Ditch

② Get down from Chung-Kang Interchange of Sun Yat-sen Freeway ①, and straight to the direction to Shalu of Taiwan Avenue. After transfer to National Taiwan Highway 61 ①, follow the direction until arrive the destination

③ On the National Taiwan Highway, you can arrive Dadu Mountain through Tunghai, Hungkuang, Chingyi, Shalu, and pass Provincial Road No.1 ①, and turn right of the National Taiwan Highway 61 ① and you can arrive from the direction.

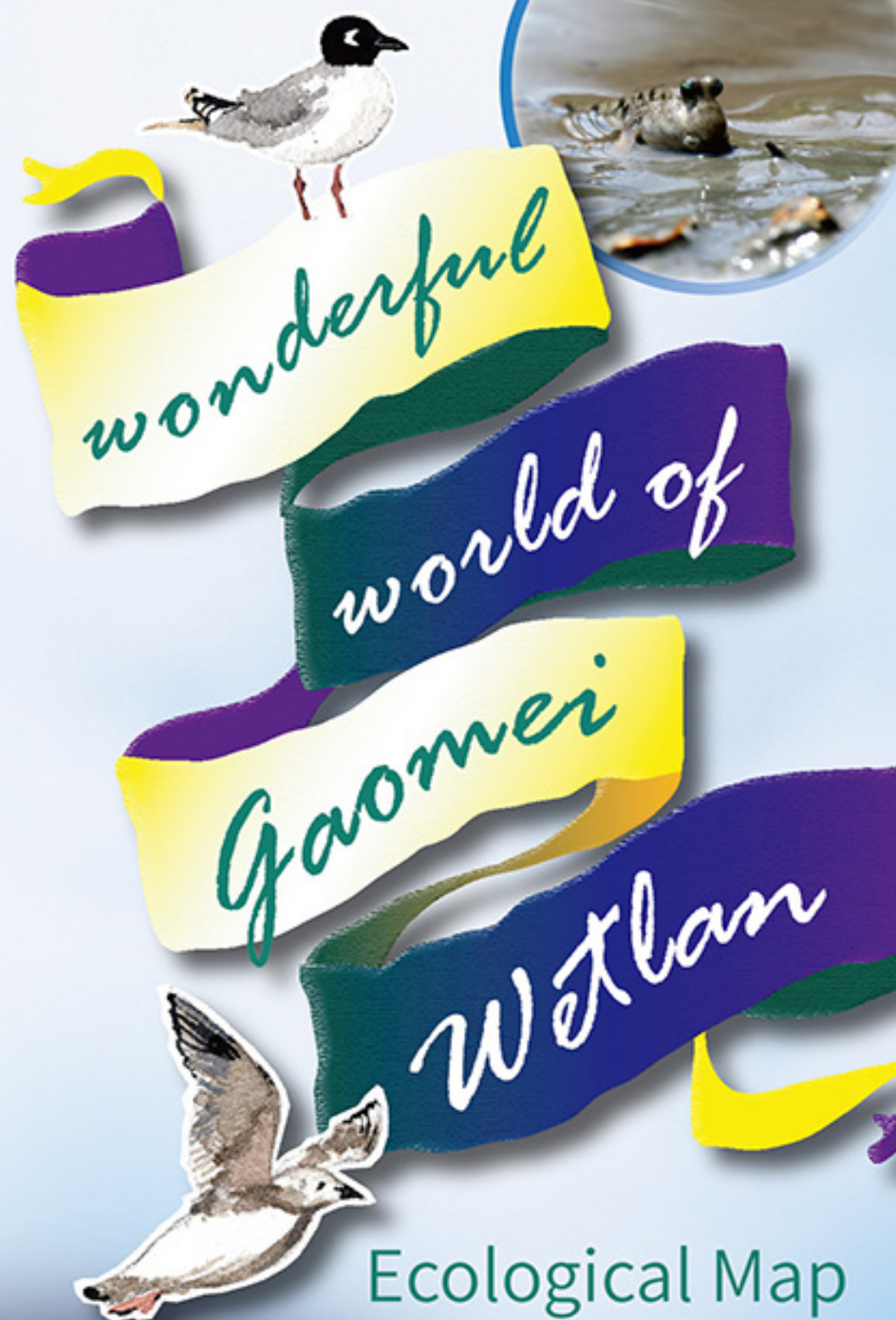
※Tourists can park your car in the parking lot in the tourist center in Gaomei Wetland, you can also park in the parking lot in the park, which is in the south side of the tourist center. There are almost 800 parking space in total.

The information of the tidal



The information of the tidal on that day or 30 days in the future will be put on the global website of Central Weather Bureau. Moreover, you can click on Taichung City Wuqi Dist to see the forecast of the tidal. In case, please choose the time within three hours before and after of the time of dry tide, therefore, you can travel safely in Wetland.

Website of more information:
http://www.cwb.gov.tw/V7/forecast/fishery/tide_1.htm



Gaomei Wetland



Introduction

Located at the Dajia River estuary, the Gaomei Wetland is a coastal marsh with *Bolboschoenus planiculmis* being the most symbolic and indicative aquatic plant in the area. The wetlands were formed due to the construction of northern sand levees of Port of Taichung, the groin effect of which had accelerated the wetland formation. Thanks to a broad variety of habitats in the area, the Gaomei Wetland is able to support an abundance of various wildlife, creating an overall impressive biodiversity. The area is also a pit stop as well as important habitat for migratory birds.



To protect the local ecosystem, the Council of Agriculture has approved and announced the status of Gaomei Wetland as "Gaomei Wildlife Conservation Area" on September 29, 2004. According to the Wildlife Conservation Act, hunting or killing of general wildlife and collection or cutting of plants are prohibited within the conservation area. The Construction and Planning Agency, Ministry of Interior further named the Gaomei Wetland as one of the Wetlands of National Importance on December 19, 2007, whereas the Taichung City Government announced on June 22, 2012 about the categorization of Gaomei Wetland into Core Zone, Buffer Zone and Sustainable Development Zone. Visitors shall not enter the Core and Buffer Zones, with violators subject to a fine of no less than NT\$50,000 and no more than NT\$250,000.



Taichung City Government
Agriculture Bureau
Taichung City Coastal Resources
And Fisheries Development Center

Ecological Map

1 Gaomei Lighthouse and Gaoxi Campus of Taichung Municipal Qing Shui Preschool

The Gaomei Lighthouse was built in 1967 for ships sailing along the west coast, and as a remedy for insufficient lighting between Baishajia Lighthouse of Taoyuan and Mudouyu Lighthouse of Penghu. After 15 years of operation the lights were relocated to the Taichung Harbor Lighthouse due to close proximity to the Fangyuan Lighthouse of Changhua and to the Taichung Harbor Lighthouse. Painted in red and white, the Gaomei Lighthouse used to be one of the significant landmarks for Dajia, Wuqi, Shalu and Qingshui, the four major coastal towns along the Dadu foothills. Now the lighthouse together with the Gaoxi Campus of Taichung Municipal Qing Shui Preschool, which features European castle-like buildings, make an obvious indicator of the Gaomei Wetland.

2 Gaomei Embankments

The embankments around the Gaomei Wetland are FanTsaiLiao embankment, Gaomei No.1 and No.2 embankments from north to south.

3 Gaomei Wetland Tourist Center

The Gaomei Wetland Tourist Center is a two-story hybrid RC-steel building located at the south of the wetland. The Gaomei dual-curve landscape bridge was completed in 2016 and can be found at the south of the wetland by the Qingshui Ditch exit.

4 Boardwalk

Built in 2014 and measuring 691 meters in length, the boardwalk extends from the information terrace and covering the Core Zone, Buffer Zone, all the way to the Sustainable Development Zone of the wildlife conservation area. The purpose of the boardwalk is to prevent visitors from stepping on the wetlands and minimize human interference with the wetland organisms.

5 War Emergency Pipeline for U.S. Military during Vietnam War

During the Vietnam War, the U.S. oil tankers docked at the outer sea of Gaomei, and transported fuel through the war emergency pipeline extending from Gaobei pumping station and along the dike road of Dajia River. It ran further eastwards to the Kezhuang in Dingnan Village, and finally uphill to the Dayang oil depot in Yangcuo Village.

6 Wind Turbines

A total of 18 wind turbines are constructed along the Huangang North Road south of Gaomei Wetland, forming a "wind turbine boulevard." Each turbine is around 64 meters in height and 5.7 tons in weight. Launched in mid-2007, the turbines have the installed capacity of 36,000 kW.



Birds



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| 7. <i>Egretta garzetta</i> | 13. <i>Prinia inornata</i> |
| 8. <i>Ardea alba</i> | 14. <i>Charadrius alexandrinus</i> |
| 9. <i>Platalea minor</i> | 15. <i>Sternula albifrons</i> |
| 10. <i>Tringa nebularia</i> | 16. <i>Pandion haliaetus</i> |
| 11. <i>Gallinula chloropus</i> | 17. <i>Tringa totanus</i> |
| 12. <i>Elanus caeruleus</i> | |



Crabs



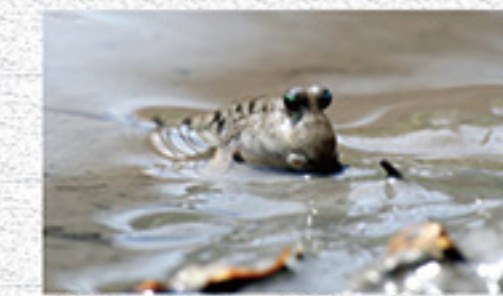
- | | |
|---------------------------------------|-------------------------------|
| 18. <i>Scopimera bitympana</i> | 27. <i>Austruca lactea</i> |
| 19. <i>Ocypode stimpsoni</i> | 28. <i>Xeruca formosensis</i> |
| 20. <i>Helice formosensis</i> | 29. <i>Matuta victor</i> |
| 21. <i>Parasesarma pictum</i> | |
| 22. <i>Cardisoma carnifex</i> | |
| 23. <i>Ocypode ceratophthalmus</i> | |
| 24. <i>Mictyris brevidactylus</i> | |
| 25. <i>Macrophthalmus abbreviatus</i> | |
| 26. <i>Tubuca arcuata</i> | |



Fishes



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| 30. <i>Periophthalmus modestus</i> | 31. <i>Boleophthalmus pectinirostris</i> |
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Plants



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|--------------------------------------|
| 32. <i>Kandelia obovata</i> |
| 33. <i>Bolboschoenus planiculmis</i> |
| 34. <i>Spartina alterniflora</i> |
| 35. <i>Zoysia sinica</i> |

