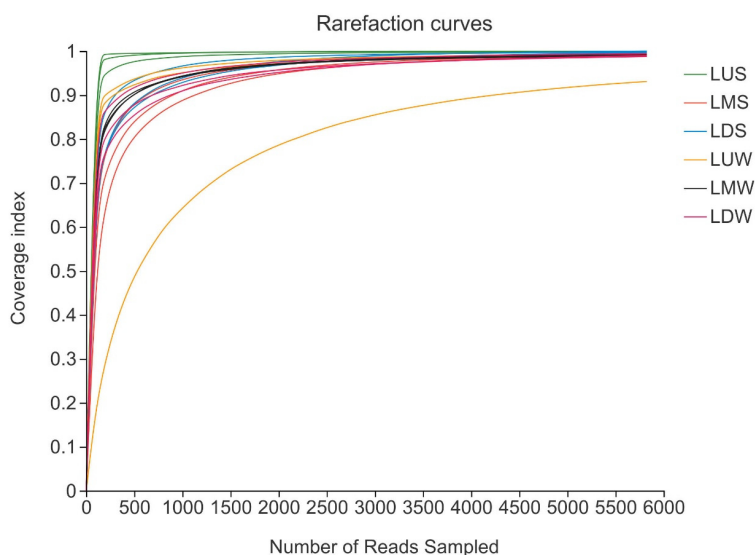
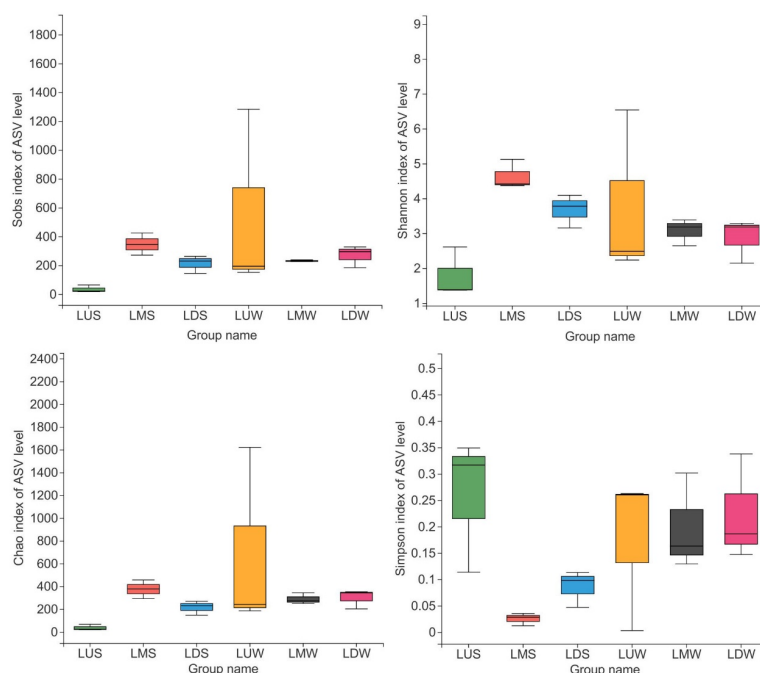


Supplementary Materilas

# Discovering the Characteristics of Community Structures and Functional Properties of Epiphytic Bacteria on *Spartina alterniflora* in the Coastal Salt Marsh Area



**Figure S1.** Rarefaction curves of the samples. LUS: summer samples of upper leaves; LMS: summer samples of middle leaves; LDS: summer samples of lower leaves; LUW: winter samples of upper leaves; LMW: winter samples of middle leaves; LDW: winter samples of lower leaves.



**Figure S2.** Comparative analysis of alpha diversity estimators of epiphytic bacteria communities on *Spartina alterniflora* among different groups. Significant differences between the two groups were

given by using Kruskal Wallis Rank Sum Test. LUS: summer samples of upper leaves; LMS: summer samples of middle leaves; LDS: summer samples of lower leaves; LUW: winter samples of upper leaves; LMW: winter samples of middle leaves; LDW: winter samples of lower leaves.

**Table S1.** Description of the samples grouping.

| Season | Longitude (°) | Latitude (°) | Sample names | Three parallel in each group | Description (n=3)               |
|--------|---------------|--------------|--------------|------------------------------|---------------------------------|
| Summer | 119.73        | 37.47        | LUS          | A1                           | Summer samples of upper leaves  |
|        |               |              |              | A2                           | Summer samples of upper leaves  |
|        |               |              |              | A3                           | Summer samples of upper leaves  |
| Summer | 119.73        | 37.47        | LMS          | B1                           | Summer samples of middle leaves |
|        |               |              |              | B2                           | Summer samples of middle leaves |
|        |               |              |              | B3                           | Summer samples of middle leaves |
| Summer | 119.73        | 37.47        | LDS          | C1                           | Summer samples of lower leaves  |
|        |               |              |              | C2                           | Summer samples of lower leaves  |
|        |               |              |              | C3                           | Summer samples of lower leaves  |
| Winter | 119.73        | 37.47        | LUW          | S1                           | Winter samples of upper leaves  |
|        |               |              |              | S2                           | Winter samples of upper leaves  |
|        |               |              |              | S3                           | Winter samples of upper leaves  |
| Winter | 119.73        | 37.47        | LMW          | M1                           | Winter samples of middle leaves |
|        |               |              |              | M2                           | Winter samples of middle leaves |
|        |               |              |              | M3                           | Winter samples of middle leaves |
| Winter | 119.73        | 37.47        | LDW          | D1                           | Winter samples of lower leaves  |
|        |               |              |              | D2                           | Winter samples of lower leaves  |
|        |               |              |              | D3                           | Winter samples of lower leaves  |

**Table S2.** Seasonal differences in water physicochemical properties of sampling sites.

| Sample | Temperature (°C) | Salinity (PSU) | DO (mg/L) | pH   | TON% (n=3)    | TOC% (n=3)    | TN% (n=3)     | TC% (n=3)     |
|--------|------------------|----------------|-----------|------|---------------|---------------|---------------|---------------|
| Summer | 29.8             | 28.2           | 8.97      | 8.07 | 0.033 ± 0.004 | 0.469 ± 0.050 | 0.035 ± 0.005 | 1.563 ± 0.060 |
| Winter | -3.3             | 33.1           | 16.37     | 8.33 | 0.008 ± 0.003 | 0.247 ± 0.050 | 0.026 ± 0.010 | 1.765 ± 0.220 |

*Note:* Data are expressed as mean ± SE. Abbreviations: TON, total organic nitrogen; TOC, total organic carbon; TN, total nitrogen; TC, total carbon.