**Table S1.** P-value from post-hoc tests showing differences in the proportion of intra and interspecific co-occurrence (% of capture events) among decades and sub-bays. \*: p-value <0.05, \*\*: p-value <0.01, \*\*\*p-value <0.001.

|  |  |  |  |
| --- | --- | --- | --- |
| **Intraspecific co-occurrence** |  |  |  |
| **Alligator Gar** | 1980s | 1990s | 2000s |
| 1990s | \*\*\* | - | - |
| 2000s | \*\*\* | \*\*\* | - |
| 2010s | \*\*\* | \*\* | \*\*\* |
| **Bull shark** |  |  |  |
| 1990s | \*\*\* | - | - |
| 2000s | \*\*\* | \*\* | - |
| 2010s | \*\*\* | \*\*\* | \*\*\* |
| **Atlantic stingray** |  |  |  |
| 1990s | 0.36 | - | - |
| 2000s | \* | \* | - |
| 2010s | 0.26 | 0.50 | 0.09 |
| **Alligator Gar** | Upper Galveston Bay | East Bay | Lower Galveston Bay |
| East Bay |  \* | - | - |
| Lower Galveston Bay | \*\*\* | \*\*\* | - |
| West Bay | \* | \*\*\* | \* |
| **Bull shark** |  |  |  |
| East Bay | 0.76 | - | - |
| Lower Galveston Bay | \* | 0.23 | - |
| West Bay | \*\* | \* | 0.76 |
| **Atlantic stingray** |  |  |  |
| East Bay | 1.00 | - | - |
| Lower Galveston Bay | 1.00 | 1.00 | - |
| West Bay | \*\*\* | \*\*\* | \*\*\* |
| **Interspecific co-occurrence** |  |  |  |
| **Alligator Gar & Bull shark**  | 1980s | 1990s | 2000s |
| 1990s | \*\*\* | - | - |
| 2000s | \*\*\* | 0.23 | - |
| 2010s | \*\*\* | \*\*\* | \*\*\* |
| **Alligator Gar & Atlantic stingray** |  |  |  |
| 1990s | \*\*\* | - | - |
| 2000s | 0.71 | \*\* | - |
| 2010s | \*\*\* | 0.72 | \*\*\* |
| **Bull shark & Atlantic stingray** |  |  |  |
| 1990s |  | - | - |
| 2000s | 0.0930 | 2.9e-05 | - |
| 2010s | 0.06 | 0.0121 | 2.9e-05 |
| **Alligator Gar & Bull shark** | Upper Galveston Bay | East Bay | Lower Galveston Bay |
| East Bay | 0.10 | - | - |
| Lower Galveston Bay | \*\*\* | \*\*\* | - |
| West Bay | \*\*\* | \*\*\* | 0.33 |
| **Alligator Gar & Atlantic stingray** |  |  |  |
| East Bay | 0.45 | - | - |
| Lower Galveston Bay | 1.00 | 0.11 | - |
| West Bay | 0.11 | 1.00 | \* |
| **Bull shark & Atlantic stingray** |  |  |  |
| East Bay | - | - | - |
| Lower Galveston Bay | - | - | - |
| West Bay | - | - | - |