**Table SM1:** Detailed historical of stations sampled and methods used for giant clam surveys at Tatakoto. “1” refers to the LIT-Q method. “2” refers to the BT method. “1|2” indicates that the LIT-Q method has been used for some transects while the BT method has been used for some others. “1&2” indicates that transects have been sampled by both methods. Stations and field trips considered in this study for the long-term monitoring of densities are bolded. Surveys performed in March 2017 by both methods on the same transects and used in this study for model validation purpose are also bolded.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Stations** | **Apr 2004** | **Jan 2012** | **Nov 2012** | **Jul 2013** | **Oct 2013** | May 2014 | Jun 2014 | **Oct 2014** | Nov 2014 | May 2015 | Nov 2015 | **Jun 2016** | Mar 2017 |
| 10b | 1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 11b\_23 | 1 | 1 | 1 |  | 1 | 1 |  | 1 |  |  |  | 1 |  |
| 12b | 1 |  |  |  |  |  |  |  |  |  |  |  |  |
| **13b\_25\_25** | 1 | 1 | 1 | 1 | 1 | 1 |  | 1 |  |  |  | 1 | **1&2** |
| 13bprime\_24 | 1 | 1 |  |  |  |  |  | 1 |  |  |  |  |  |
| 14b | 1 |  |  |  |  |  |  | 1 |  |  |  |  |  |
| **1b\_16** | 1 | 1 | 1 | 1 | 1 | 1 |  | 1 | 1&2 |  |  | 1 | **1&2** |
| **20b\_21** | 1 | 1 | 1 | 1 | 1 | 1 |  | 1 |  |  |  | 1 | **1&2** |
| **23b\_30** | 1 | 1 | 1 | 1 | 1 | 1 |  | 1 |  |  |  | 1 | **1&2** |
| **25b\_28** | 1 | 1 | 1 | 1 | 1 | 1 |  | 1 |  |  |  | 1 | **1&2** |
| 26b\_27 | 1 | 1 | 1 |  | 1 | 1 |  | 1 |  |  |  | 1 |  |
| 2b | 1 |  |  |  |  |  |  | 1 |  |  |  |  |  |
| **30b\_15** | 1 | 1 | 1 | 1 | 1 | 1 |  | 1 |  |  |  | 1 | **1&2** |
| 31b\_6 | 1 | 1 | 1 |  | 1 | 1 | 1 | 1 |  | 1 | 1&2 | 1 | **1&2** |
| 31bprime | 1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 35b\_26 | 1 | 1 | 1 |  | 1 | 1 |  | 1 |  |  |  | 1 |  |
| 36b | 1 |  |  |  | 1 |  |  | 1 |  |  |  | 1 |  |
| **4b\_19** | 1 | 1 | 1 | 1 | 1 | 1 |  | 1 | 1&2 |  |  | 1 | **1&2** |
| 5b\_18 | 1 | 1 | 1 |  | 1 | 1 |  | 1 |  |  |  | 1 |  |
| 9b | 1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 3b | 1 |  |  |  |  |  |  | 1 |  |  |  |  |  |
| 10a | 1 |  |  |  |  |  |  | 1 |  |  |  |  |  |
| 12a | 1 |  |  |  |  |  |  | 1 |  |  |  |  |  |
| 12aprime | 1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 16a | 1 |  |  |  |  |  |  | 1 |  |  |  |  |  |
| 17a | 1 |  |  |  |  |  |  | 1 |  |  |  |  |  |
| 19a | 1|2 |  |  |  |  |  |  | 1 |  |  |  |  |  |
| 1a | 2 |  |  |  |  |  |  |  |  |  |  |  |  |
| 20a | 1 |  |  |  |  |  |  | 1 |  |  |  |  |  |
| 21a | 1 |  |  |  |  |  |  | 1 |  |  |  |  |  |
| 24a | 1|2 |  |  |  |  |  |  | 1 |  |  |  |  |  |
| 27a | 1 |  |  |  |  |  |  | 1 |  |  |  |  |  |
| 28a | 1 |  |  |  |  |  |  | 1 |  |  |  |  |  |
| 29a | 1|2 |  |  |  |  |  |  | 1 |  |  |  |  |  |
| 3a | 2 |  |  |  |  |  |  |  |  |  |  |  |  |
| 4a | 1|2 |  |  |  |  |  |  |  |  |  |  |  |  |
| 7a | 2 |  |  |  |  |  |  |  |  |  |  |  |  |
| 8a | 2 |  |  |  |  |  |  |  |  |  |  |  |  |
| 9a | 1 |  |  |  |  |  |  | 1 |  |  |  |  |  |
| Z3 | 1 |  |  |  |  |  |  | 1 |  |  |  |  |  |
| Z4 | 1 |  |  |  |  |  |  | 1 |  |  |  |  |  |
| Z6 | 1 |  |  |  |  |  |  | 1 |  |  |  |  |  |
| 2 |  | 1 |  |  | 1 | 1 |  | 1 | 1&2 |  |  | 1 |  |
| 3 |  | 1 |  |  | 1 |  |  |  |  |  |  | 1 |  |
| 4 |  | 1 | 1 |  | 1 |  |  | 1 | 1&2 |  |  | 1 |  |
| 5 |  | 1 | 1 |  | 1 | 1 |  | 1 |  |  |  | 1 |  |
| 7 |  | 1 |  |  | 1 | 1 |  | 1 |  |  |  | 1 |  |
| 8 |  | 1 | 1 |  | 1 | 1 | 1 | 1 |  | 1 | 1&2 | 1 | **1&2** |
| 9 |  | 1 | 1 |  | 1 | 1 |  | 1 |  |  |  | 1 |  |
| 10 |  | 1 |  |  | 1 | 1 |  | 1 |  |  |  | 1 |  |
| 11 |  | 1 | 1 | 1 | 1 | 1 |  | 1 |  |  |  | 1 | **1&2** |
| 12 |  | 1 |  |  | 1 |  |  |  |  |  |  | 1 |  |
| 13 |  | 1 |  |  | 1 |  |  | 1 |  |  |  | 1 |  |
| 14 |  | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1&2 | 1 | 1 | 1 | **1&2** |
| 17 |  | 1 |  |  | 1 | 1 | 1 | 1 | 1&2 | 1 | 1&2 | 1 | **1&2** |
| 20 |  | 1 |  |  | 1 | 1 |  | 1 |  |  |  | 1 |  |
| 22 |  | 1 |  |  | 1 |  |  |  |  |  |  | 1 |  |
| 29 |  | 1 |  |  |  |  |  |  |  |  |  |  |  |
| 21 bis |  |  | 1 |  |  |  |  |  |  |  |  |  |  |
| 28 bis |  |  | 1 |  |  |  |  |  |  |  |  |  |  |
| 15 bis |  |  | 1 |  |  |  |  |  |  |  |  |  |  |
| S1 |  |  | 1 |  |  |  |  |  |  |  |  |  |  |
| S2 |  |  | 1 |  |  |  |  |  |  |  |  |  |  |
| 25a |  |  |  |  |  |  |  | 1 |  |  |  |  |  |
| PORITES\_12b |  |  |  |  |  |  |  | 1 |  |  |  |  |  |
| 12b\_prime |  |  |  |  |  |  |  | 1 |  |  |  |  |  |
| 35bsecond |  |  |  |  |  |  |  | 1 |  |  |  |  |  |