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Data Article

Dataset on the importation of the exotic shrimp *Penaeus vannamei* broodstock (Boone, 1931) to India



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ARTICLE INFO

Article history:

Received 27 December 2016

Received in revised form

25 January 2017

Accepted 13 February 2017

Available online 21 February 2017

Keywords:

Broodstock

Transit

Quarantine

ABSTRACT

Penaeus vannamei is an exotic shrimp species that has gained high culture momentum, since its introduction to India [1]. Currently, the culture of the species in the Country is being done by the shrimp farmers by importation of Specific Pathogen Free (SPF) vannamei broodstock from approved suppliers, which are located overseas. The value of one brooder normally ranges from 50 to 61 US \$, excluding the custom duty, processing fee and other charges for the transboundary shipment of the stock to India. The *P. vannamei* stock are permitted to be imported to the Country by the hatchery operators only through the single declared port of entry, i.e. Chennai in Tamil Nadu in the Country. The imported parent shrimps are then to be quarantined at the Aquatic Quarantine Facility before being transported to the vannamei hatcheries [2].

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This article reports the data available on import of vannamei broodstock to India since its importation to India in 2009. The dataset presented here contains information on transit and quarantine mortality of the brooders following the shipment of the stock by the various broodstock suppliers from the overseas.

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Specifications Table

| | |
|----------------------------|---|
| Subject area | <i>Biology</i> |
| More specific subject area | <i>Aquaculture</i> |
| Type of data | <i>Table and graph</i> |
| How data was acquired | <i>Direct source from the Quarantine unit for Penaeus vannamei, the only one such facility in India</i> |
| Data format | <i>Analyzed</i> |
| Experimental factors | <i>Influence of shipment duration on transit mortality and quarantine survival of imported P. vannamei brooders</i> |
| Experimental features | <i>Shipment mortality and survival during quarantine</i> |
| Data source location | <i>India</i> |
| Data accessibility | <i>Public repository</i> |

Value of the data

- The Aquatic Quarantine Facility (AQF) being the only dedicated Government approved quarantine centre for *P. vannamei*, the data generated from the facility is the only source of information on the entry of the exotic shrimp species into the Country.
- Benefits the aquaculture research and as well as the sector by providing traceability to the stock that is being produced from India.
- Data provides information on the quantum of broodstock and its survival when imported from overseas suppliers during its transboundary shipment and quarantine.
- Comparative analysis of the data presented here would help the suppliers to take appropriate measures to minimize the mortality of the highly valued brooders during shipment of the broodstock.
- Provides secondary information for the policy makers on the shrimp production of the Country based on the importation data.

1. Data

The data presented in this article shows the supplier wise import, quarantine and transit mortality of the *P. vannamei* stock since the introduction of vannamei culture in the Country (Table 1). A comparison of the mortality rates (percentage mean) during shipment and quarantine is provided in Table 2.

Table 1

Tukeys Multiple Comparison between *P. vannamei* broodstock suppliers on the basis of percentage of mean transit and quarantine mortalities.

| Comparison between supplier groups | Transit Mortality (%mean) | Quarantine Mortality(% mean) |
|---|---------------------------|------------------------------|
| V.101, Thailand vs. Blue Genetics, Mexico | ns | ns |
| V.101, Thailand vs. CP, Thailand | ns | ns |
| V.101, Thailand vs. Global Blue, Texas | s | s |
| V.101, Thailand vs. Global Gen, Indonesia | ns | ns |
| V.101, Thailand vs. Oceanic Inst | ns | ns |
| V.101, Thailand vs. SIS, Hawaii | s | ns |
| V.101, Thailand vs. Kona Bay, Hawaii | s | ns |
| V.101, Thailand vs. SIS, Singapore | ns | ns |
| V.101, Thailand vs. SIS, Florida | ns | ns |
| V.101, Thailand vs. Syaqua, Thailand | ns | s |
| Blue Genetics, Mexico vs. CP, Thailand | ns | ns |
| Blue Genetics, Mexico vs. Global Blue, Texas | ns | ns |
| Blue Genetics, Mexico vs. Global Gen, Indonesia | ns | ns |
| Blue Genetics, Mexico vs. Oceanic Inst | ns | ns |
| Blue Genetics, Mexico vs. SIS, Hawaii | ns | ns |
| Blue Genetics, Mexico vs. Kona Bay, Hawaii | ns | ns |
| Blue Genetics, Mexico vs. SIS, Singapore | ns | ns |
| Blue Genetics, Mexico vs. SIS, Florida | ns | ns |
| Blue Genetics, Mexico vs. Syaqua, Thailand | ns | ns |
| CP, Thailand vs. Global Blue, Texas | s | s |
| CP, Thailand vs. Global Gen, Indonesia | ns | ns |
| CP, Thailand vs. Oceanic Inst | ns | ns |
| CP, Thailand vs. SIS, Hawaii | s | s |
| CP, Thailand vs. Kona Bay, Hawaii | s | s |
| CP, Thailand vs. SIS, Singapore | ns | ns |
| CP, Thailand vs. SIS, Florida | ns | ns |
| CP, Thailand vs. Syaqua, Thailand | ns | s |
| Global Blue, Texas vs. Global Gen, Indonesia | ns | ns |
| Global Blue, Texas vs. Oceanic Inst | s | s |
| Global Blue, Texas vs. SIS, Hawaii | ns | ns |
| Global Blue, Texas vs. Kona Bay, Hawaii | ns | s |
| Global Blue, Texas vs. SIS, Singapore | s | s |
| Global Blue, Texas vs. SIS, Florida | s | s |
| Global Blue, Texas vs. Syaqua, Thailand | s | s |
| Global Gen, Indonesia vs. Oceanic Inst | ns | ns |
| Global Gen, Indonesia vs. SIS, Hawaii | ns | ns |
| Global Gen, Indonesia vs. Kona Bay, Hawaii | ns | ns |
| Global Gen, Indonesia vs. SIS, Singapore | ns | ns |
| Global Gen, Indonesia vs. SIS, Florida | ns | ns |
| Global Gen, Indonesia vs. Syaqua, Thailand | ns | s |
| Oceanic Inst vs. SIS, Hawaii | s | ns |
| Oceanic Inst vs. Kona Bay, Hawaii | s | ns |
| Oceanic Inst vs. SIS, Singapore | ns | ns |
| Oceanic Inst vs. SIS, Florida | ns | ns |
| Oceanic Inst vs. Syaqua, Thailand | ns | s |
| SIS, Hawaii vs. Kona Bay, Hawaii | ns | ns |
| SIS, Hawaii vs. SIS, Singapore | s | ns |
| SIS, Hawaii vs. SIS, Florida | s | s |
| SIS, Hawaii vs. Syaqua, Thailand | s | s |
| Kona Bay, Hawaii vs. SIS, Singapore | s | ns |
| Kona Bay, Hawaii vs. SIS, Florida | s | s |
| Kona Bay, Hawaii vs. Syaqua, Thailand | s | s |
| SIS, Singapore vs. SIS, Florida | ns | ns |
| SIS, Singapore vs. Syaqua, Thailand | ns | s |
| SIS, Florida vs. Syaqua, Thailand | ns | s |

s-significant; ns-not significant; level of significance-0.05.

Table 2

One way-ANOVA ($\alpha=0.05$ level) test results on the influence of transit mortality on quarantine mortality of *P. vannamei* broodstock.

| S. No. | Broodstock Supplier | Calculated p value |
|--------|--|--------------------|
| 1 | Vannamei 101, Thailand | 0.724 ^a |
| 2 | SIS, Singapore | 0.295 ^a |
| 3 | Blue Genetics, Mexico | 0.534 ^a |
| 4 | CP, Thailand | 0.505 ^a |
| 5 | Sea Products-Global Blue Technologies, Texas | 0.017 ^b |
| 6 | Global Gen, Indonesia | 0.856 ^a |
| 7 | Oceanic Institute, Hawaii | 0.984 ^a |
| 8 | SIS, Hawaii | 0.229 ^a |
| 9 | Syaqua Siam, Thailand | 0.096 ^a |
| 10 | Kona Bay, Hawaii | 0.004 ^a |
| 11 | SIS, Florida | 0.057 ^b |

Values superscripted as

^a indicates no significant effect.

^b indicates significant effect.

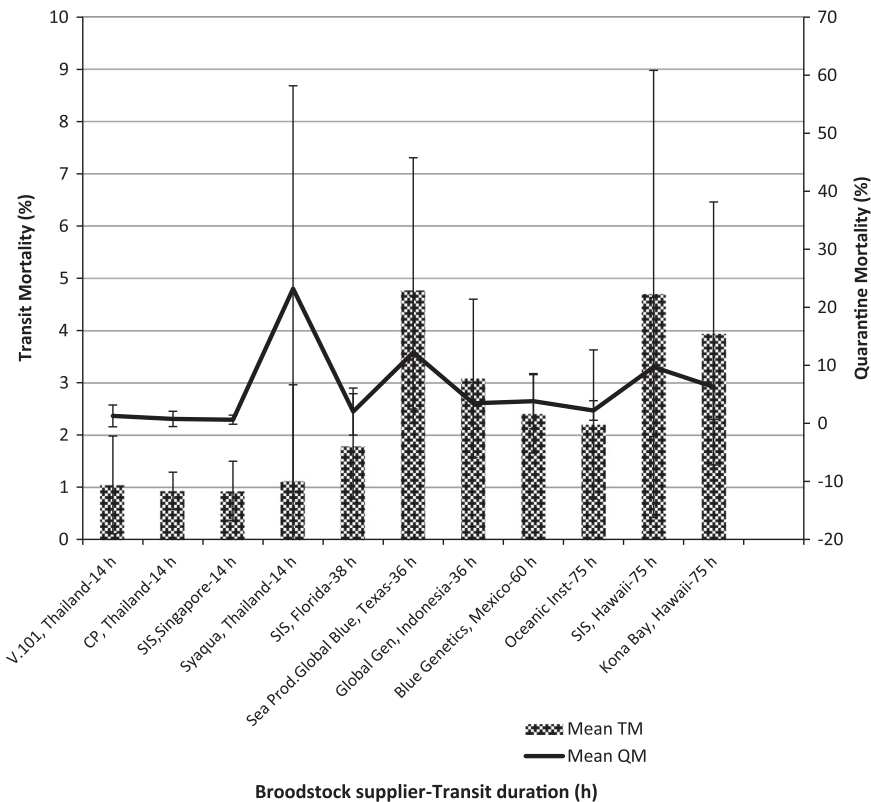


Fig. 1. Relation between transit and quarantine mortalities (Mean \pm SEM) of *P. vannamei* broodstock supplied to India by different broodstock suppliers.

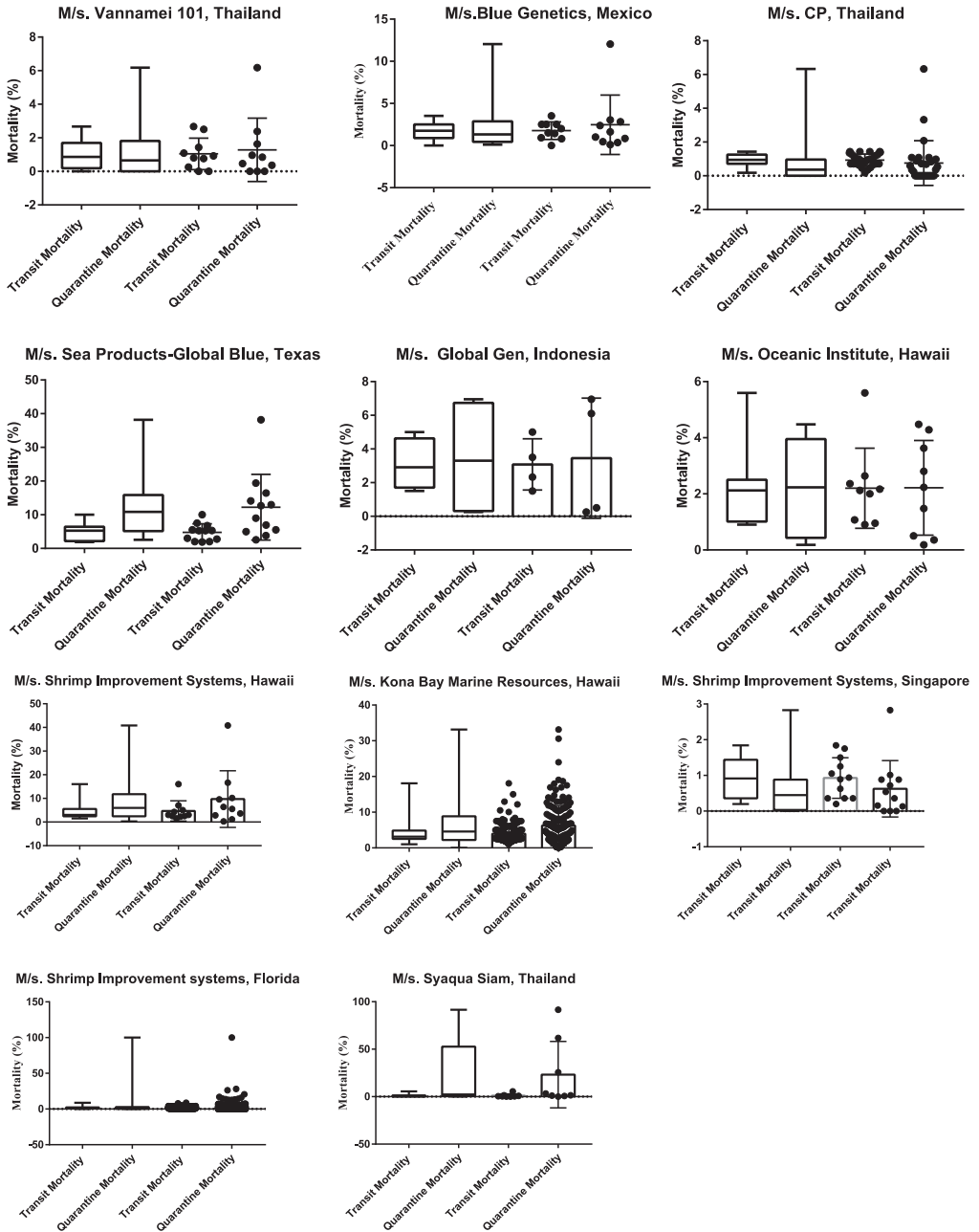


Fig. 2. Scatter plot and box whisker representation of percentage mortalities of imported *P. vannamei* brooders.

2. Experimental design, materials and methods

The importation data of *P. vannamei* brooders to India from different approved broodstock suppliers was collected from the quarantine facility, since its inception. The data on transit and quarantine mortality was obtained and subjected to statistical analysis using Graphpad prism 7.0 software.

The normal duration of broodstock shipment from the suppliers is provided. However, the unusual delays in shipment caused due to flight delays and change in flight routes are not considered while indicating the overall shipment duration in the data given. The mean and the standard error of the data when normally distributed is presented. Tukeys Multiple comparison test at 0.05 level was used to compare the data obtained on quarantine and shipment mortalities between the different suppliers (Figs. 1 and 2).

Acknowledgements

The authors are grateful to Dr. A. Jayathilak, IAS, President RGCA and Chairman MPEDA for the continuous encouragement and support rendered for the smooth operation of the facility. The authors are also thankful to the funding agencies NFDB and MoCI, Government of India. Support from the key member organizations of the AQF including the Coastal Aquaculture Authority, Animal Quarantine & Certification Services, MoA and Central Institute of Brackishwater Aquaculture, Chennai are also gratefully acknowledged.

Transparency document. Supporting information

Transparency data associated with this article can be found in the online version at <http://dx.doi.org/10.1016/j.dib.2017.02.034>.

Appendix A. Supporting information

Supplementary data associated with this article can be found in the online version at <http://dx.doi.org/10.1016/j.dib.2017.02.034>.

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- [2] Department of Animal Husbandry, Dairying & Fisheries order No. 35029/13/2008- Fy (T & E). Standard Operating Procedures for Aquatic Quarantine Facility for *L. vannamei* 02 June 2009.