## Parental effects on survival and size variation of *Pseudoplatystoma punctifer* (Castelnau, 1855) larvae reared in communal situation

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The paternal effect on growth and survival of the offspring of *Pseudoplatystoma punctifer* was evaluated from 1 to 26 days post fertilization (dpf). Four progenies were obtained by combining the eggs of a single female with a pool of sperm from four males. They were raised in communal tanks at 28 ± 0.5 ºC. All families were grown in a recirculating water system and fed from 3 dpf with *Artemia* nauplii five times a day every 3 h from 07:30 to 19:30. Mean total length (TL), differential viability and maximum difference index in size were calculated for each family at 3 sampling times (N = 50) and results were analyzed by multivariate ANOVA. There was a significantly higher contribution of two families to the offspring from 1 dpf, which was maintained until the end of the follow-up period. There was no significant difference in the growth rates of the four families during the experimental period, but there was evidence of a parental effect on the progeny viability. Individuals of the family that disappeared in the third control did not show lower growth than those from the other families in the two previous controls. The formation of two groups (based on their viability) during the monitoring period reflected the genetic quality of the families. Groups showing greater viability over time may indicate good parental genetic quality, whereas groups showing lower viability may indicate lower parental genetic quality. At 26 dpf, all offspring families presented relatively homogeneous size as confirmed by the CV%. There was no significant correlation between heterozygosity and mean TL. However the progeny showed an inverse correlation between the heterozygosity and viability. This could indicate that families with high level of heterozygosity do not necessarily present good viability. The results also showed that male did not influence the range of growth variation at early life stages (up to 26 dpf), but there was evidence that they influenced the offspring viability.

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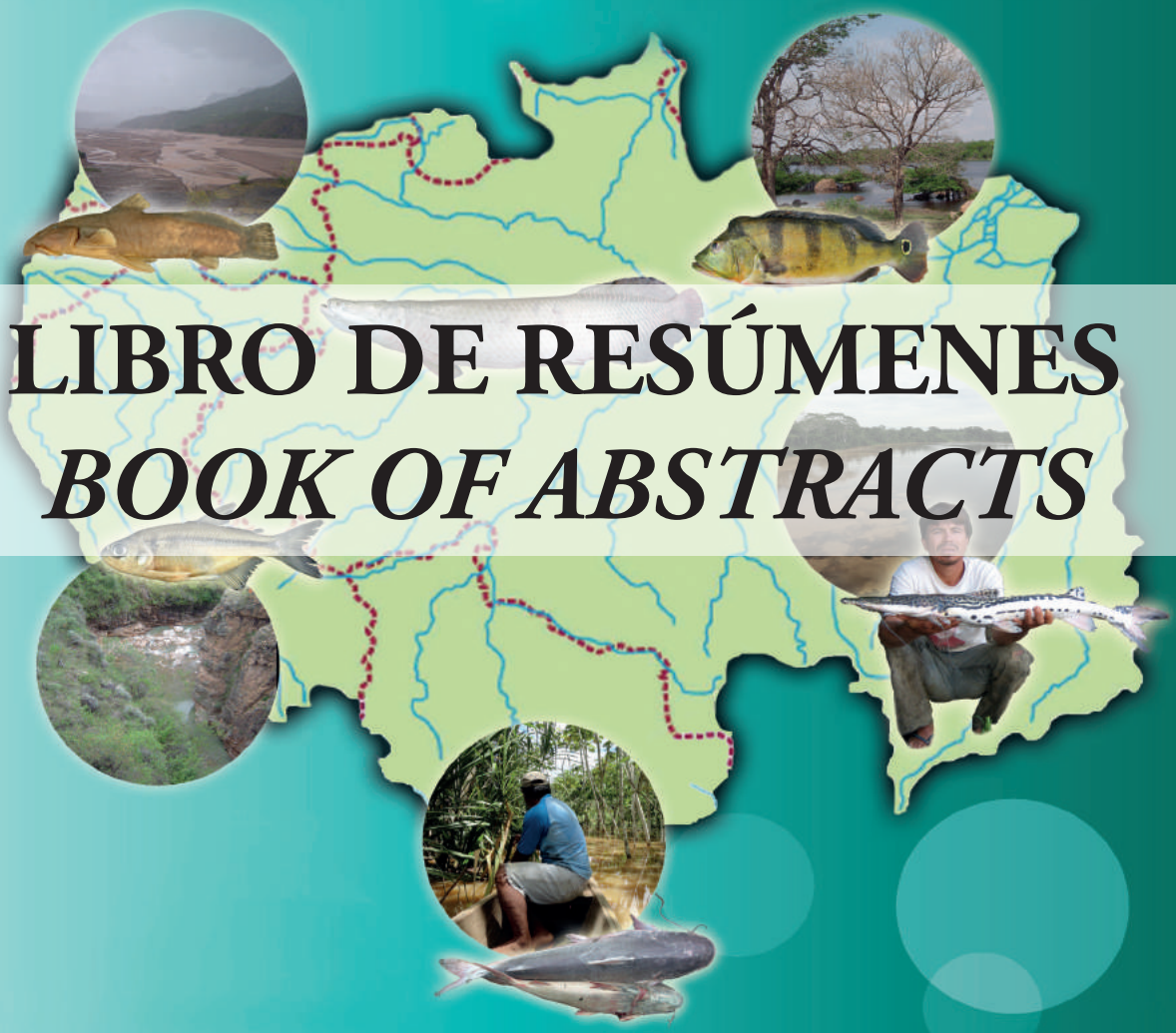

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**Editores - *Editors*:**
**Maria J. Darias**
**Danny Rejas**

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Red de Investigación sobre la Ictiofauna Amazónica (RIIA)
*Research Network on Amazonian Ichthyofauna (RIIA)*
www.riiaamazonia.org

Editores - *Editors*: Maria J. Darias, Danny Rejas



Darias, M.J. & Rejas, D. (Eds.) (2015). 4º Coloquio Internacional RIIA - Red de Investigación sobre la Ictiofauna Amazónica: Libro de resúmenes. Cochabamba; Marseille: Universidad Mayor de San Simón; Institut de Recherche pour le Développement. 84 p.

*Darias, M.J. & Rejas, D. (Eds.) (2015). 4th RIIA International Conference - Research Network on Amazonian Ichthyofauna: Book of Abstracts. Cochabamba; Marseille: Universidad Mayor de San Simón; Institut de Recherche pour le Développement. 84 p.*