

Experiences on captive breeding of the Pacific pygmy octopus *Paroctopus digueti*

Bertha P. Ceballos-Vázquez (bceballo@ipn.mx)¹, Mauricio Contreras-Olgún,¹ Juan C. Beltrán-Murillo,² Laura G. Flores-Montijo,¹ María G. Martínez-Morales,¹ Silverio López-López,¹ Héctor Nolasco-Soria,³ Daríel Tovar-Hernández.³

¹Instituto Politécnico Nacional, Centro Interdisciplinario de Ciencias Marinas. Av. Instituto Politécnico Nacional s/n Col. Playa Palo de Santa Rita. C.P. 23096, La Paz, BCS, México.

²Universidad Autónoma de Baja California Sur. Carretera al Sur km 5.5, A.P. 19-B, C.P. 23080, La Paz BCS, México.

³Centro de Investigaciones Biológicas del Noroeste, S.C. Av. Instituto Politécnico Nacional 195, Col. Playa Palo de Santa Rita. C.P. 23096, La Paz, BCS, México.

BACKGROUND

The Pacific pygmy octopus *Paroctopus digueti* is a good candidate to keep in the laboratory to develop the culture as a research model, attributable to:

1. Captivity Adaptability.
2. Direct development.
3. Fast growth.
4. Short life cycle.



To improve the conditions for their breeding, we evaluated **different culture conditions of water flow, socialization and food.**

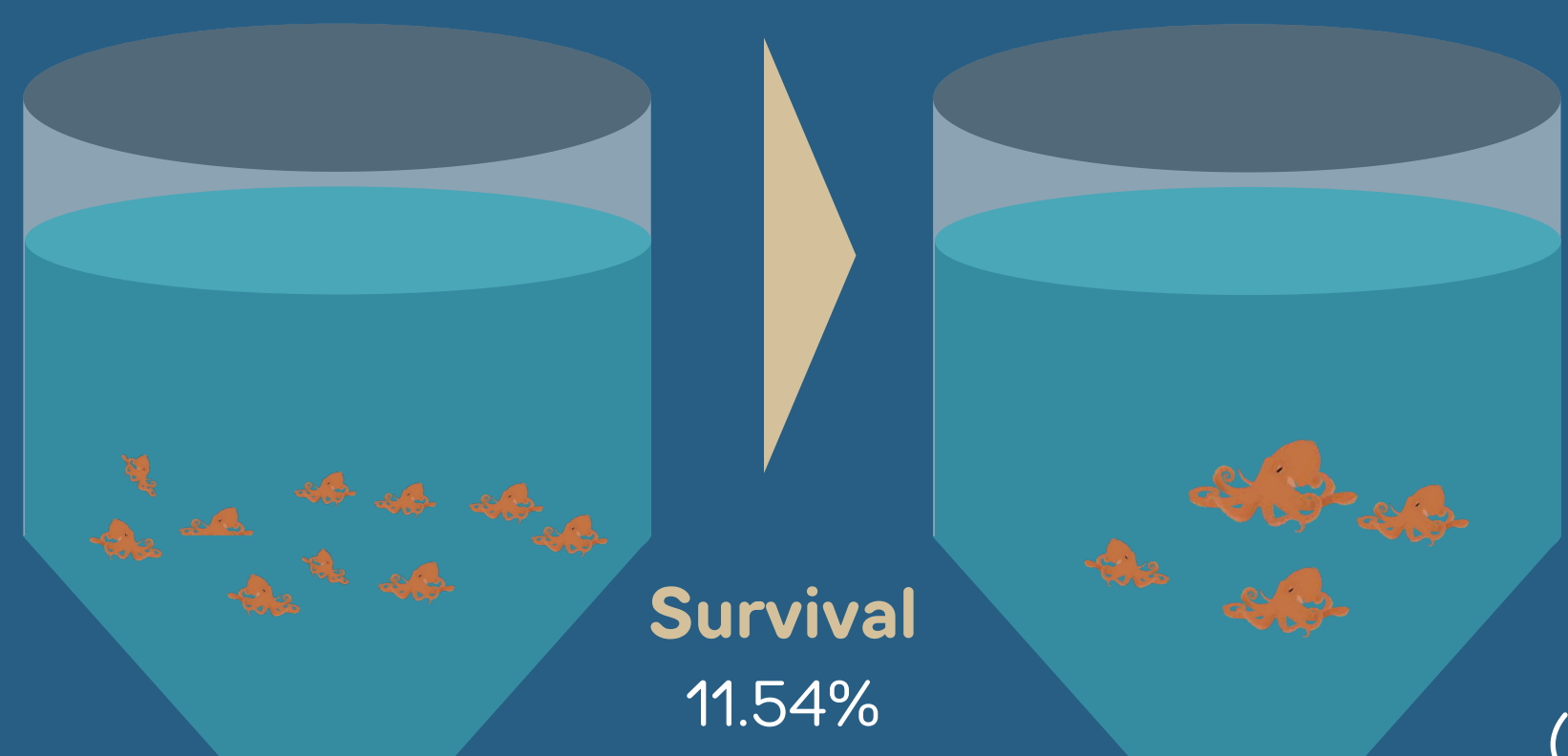
EXPERIMENTAL DESIGN



RESULTS AND DISCUSSION

Thirty-day-old juveniles (0.33 g ± 0.15 SD)

Treatment I GROUP



Survival
11.54%

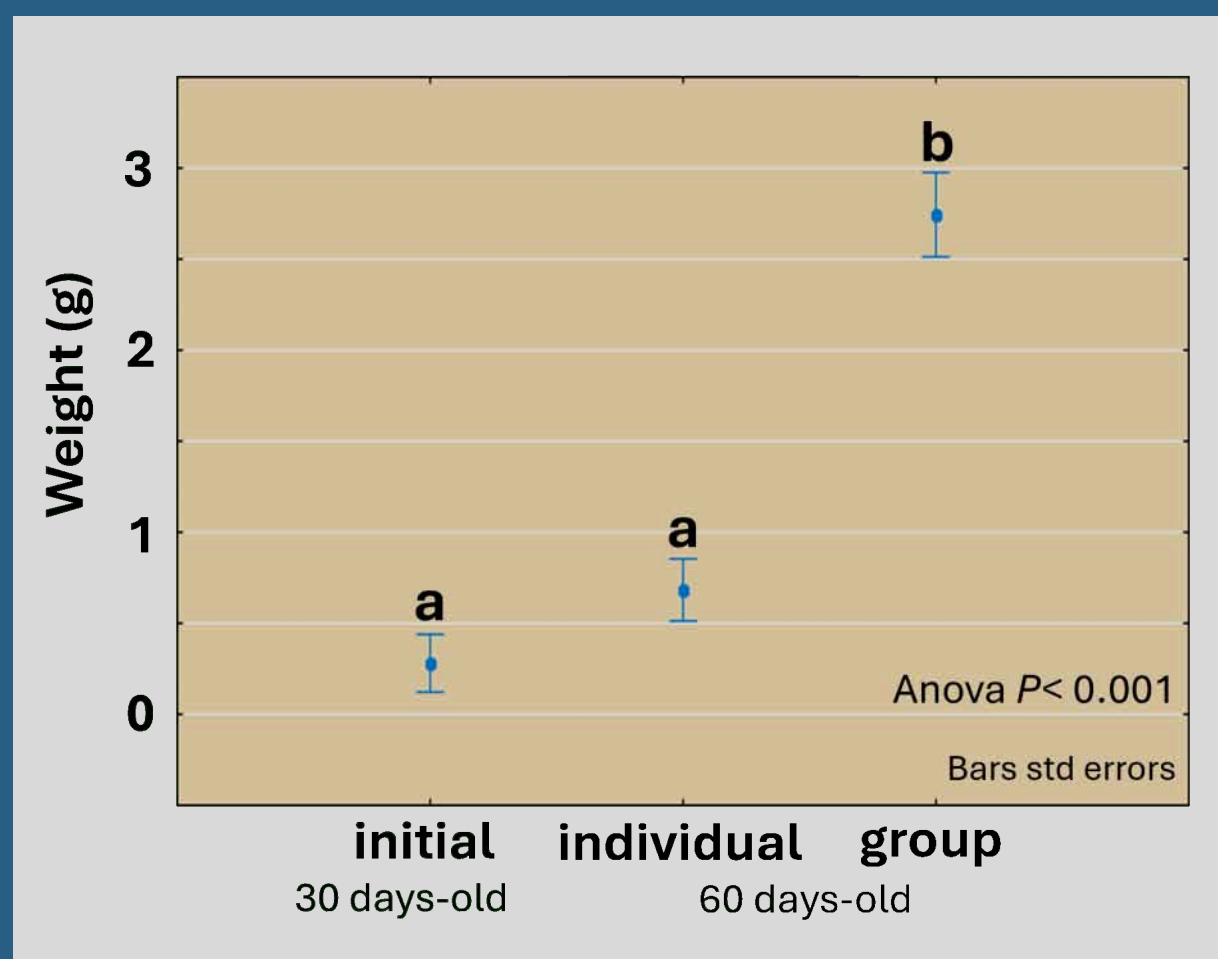
Mortality due to Cannibalism

Weight gain

0.04 g per day

86.50% total

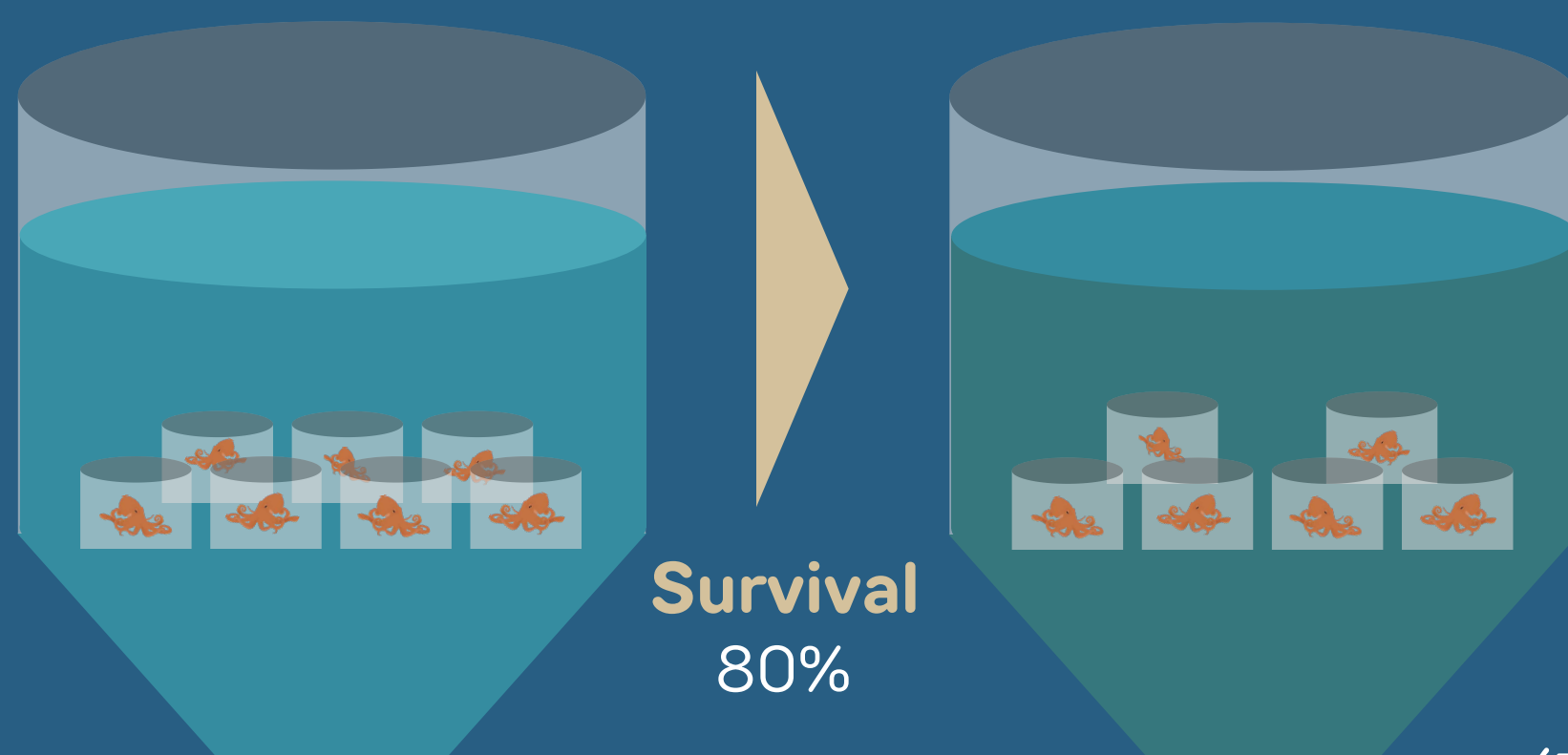
Marked uneven individual growth
(Range 1.3 g to 4.6 g)



Octopuses showed poor survival but higher weight gain when they were kept in group. The above and the uneven final individual size of octopuses could be explained by cannibalism.

By keeping octopuses individually, cannibalism was avoided and survival was high. However, in this case, it was difficult to maintain good water quality inside the containers, which could have affected the growth of the octopuses.

Treatment II INDIVIDUAL



Survival
80%

Mortality due to poor water quality

Weight gain

0.01 g per day

58.75% total

Slight uneven individual growth
(Range 0.35 g to 0.99 g)

CONCLUSIONS

An open water flow system was better than a recirculating one.

Live food was better than inert during the first month. Subsequently, good results were obtained with fresh food.

It is necessary to improve the water quality of individual containers and supplement the group treatment with more shelters and food.

ACKNOWLEDGMENTS

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