



# How best to transport live prawns?



**The Fish Vet**

The objective of transporting prawns will dictate the best way to transport them. Post-harvest prawns are commonly transported alive directly to markets or restaurants. This practice guarantees maximum freshness of the harvested animals up to the final sale. However, prawns transported between farms, from wild environment to hatcheries or between states and /or countries also need the best practices of transportation to ensure good health of animals.

Prawns as all animals get stressed during transportation. Ideally stress on prawns should be minimised during transport to avoid problems at their final destination. Size of animals, species and length of journey are important factors to consider before choosing the ideal transportation method. Temperature and dissolved oxygen are the two main parameters which must be checked constantly and improved prior and during transportation. The basic principle behind live transportation is to keep water temperature low (usually 6 – 8 °C below pond temperature; gradually lowered over a 4-hour period). The water temperature is lowered to reduce the metabolic rate of the animal to a minimum. Low metabolic rate minimises oxygen consumption by animals. During long distance transport this practice is crucial.





Prawn metabolic rates will vary depending on animal's age. Post-larvae have a lower metabolic rate than adult animals. Ideally preparation of animals for transport should be done in early hours of the day (before sun rise) to minimise heat stress.

In general, the ideal transport conditions for prawns are:

1. **Post-larvae transport:** Strong transparent plastic bags (similar to the one used for fish transport) are filled to 1/3 with water from original post-larvae ponds. Usually 80-100 (for tiger prawns; density of animals depend on prawn species) post-larvae per litre are added to bag (fewer animals for longer trips). The other 2/3 of the bag is filled with oxygen. Animals can survive up to 16-hours in these bags.

Another common practice during transport of post-larvae is to add *Artemia* nauplii to bags to avoid cannibalism among prawns. Bags should be placed in polystyrene boxes during transport. Small ice bricks can be placed, securely taped to the lid of the boxes (to prevent direct contact with the water) to prevent temperature rising.

2. **Adult prawn transport:** Similar bags used for post-larvae can be used to transport adult animals during air transportation. Similar to post-larvae, water from prawn's ponds should be used for transport. Density of animals per bag will vary according to size of animals (larger animals consume more oxygen; fewer animals should be placed in each bag). As a general rule, prawns around 17-18g should be transported at a density of 7 animals/litre; smaller animals (3-4g) should be transported at a density of 30 animals/litre.





Adult prawns can also be transported in trucks equipped with fish transport containers. Similar animal densities used for air transport can be applied for terrestrial trips. Generally transport containers are equipped with air compressor (battery) to maintain high oxygen levels during transport. The containers should be filled with water from prawn's ponds. During transportation oxygen levels and temperature must be checked.

For more detailed information contact [The Fish Vet](http://TheFishVet)

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