

*Revised version (clean)*

**First report of IHHNV infection from the wild shrimps of Andaman and  
Nicobar Islands, India**

**K. Saravanan<sup>1\*</sup>, P. Puneeth Kumar<sup>1</sup>, Arunjyoti Baruah<sup>1</sup>, J. Praveenraj<sup>1</sup>, T. Sathish  
Kumar<sup>2</sup>, S. Pramod Kumar<sup>1</sup>, T. Sivaramakrishnan<sup>1</sup>, A. Anuraj<sup>1</sup>, J. Raymond Jani Angel<sup>1</sup>,  
R. Kiruba Sankar<sup>1</sup> and S. Dam Roy<sup>1</sup>**

<sup>1</sup>ICAR-Central Island Agricultural Research Institute, Port Blair - 744105, Andaman and  
Nicobar Islands, India

<sup>2</sup>ICAR-Central Institute of Brackishwater Aquaculture, 75 Santhome High Road, Raja  
Annamalai Puram, Chennai - 600028, Tamil Nadu, India

\* For correspondence. (e-mail: sarocife@gmail.com)

## **ABSTRACT**

The present study was intended to screen the wild shrimps of Andaman and Nicobar Islands (ANI) against infectious diseases. A total of 175 shrimp samples (35 pools) consisting of *Fenneropenaeus indicus*, *Penaeus monodon*, *Penaeus merguensis* and *Metapenaeus monoceros* were collected from different landing centers across ANI. Out of 35 pools of samples analyzed by PCR, a total of 10 pools of *Penaeus monodon* collected from Betapur (1 pool), Lohabarrack (4 pools) and Campbell Bay (5 pools) were found positive for Infectious Hypodermal and Hematopoietic Necrosis Virus (IHHNV). Nucleotide sequence of IHHNV isolated from ANI showed 100% identity to the sequences of IHHNV reported from Vietnam, Taiwan, Australia, China, Egypt, USA, Ecuador, 99% identity to IHHNV reported from Brazil, Venezuela, Korea, 96% identity to IHHNV reported from Thailand and 95% identity to IHHNV reported from India. Based on phylogenetic tree analysis, IHHNV of ANI is closely related to IHHNV of Vietnam. Histopathological analysis revealed typical eosinophilic intranuclear cowdry type A inclusion bodies in gill lamellae which further confirmed the IHHNV infection. The present study provides a definitive evidence for the first report of infectious IHHNV in wild *P. monodon* from ANI.

**Keywords:** IHHNV, wild shrimp, *Penaeus monodon*, disease surveillance, Andaman and Nicobar Islands