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SELECTING WILD SPAWNERS AND BROODSTOCK FOR YOUR PRAWN HATCHERY

Hatchery operators and technicians should know how to select wild spawners and broodstock to get their money's worth. Wild spawners cost from P350 to P1,000 apiece forming a large part of the expenses in operating a prawn hatchery.

Generally, select prawns that are:

1. Healthy - Shell is shiny and clear with no signs of disease or injury.

2. Not stressed - Stress cannot be easily detected and can lead to low spawning and hatching rates. A stressed prawn falls to its side and cannot return to the upright position. Causes of stress are rough handling and transport conditions such as lack of oxygen or low water temperature.

To select good spawners, check the health and lack of stress of the female prawn as described above. Then hold the prawn against the light and classify according to the following maturation stages:

Stage I or immature - Ovaries are not visible externally.

Stage II or early maturing - Ovaries can be seen as a thin linear band extending from the center of the body to the tail.

Stage III or late maturing - Ovaries can be seen as a thick, solid linear band with a slight "diamond" or "butterfly" enlargement in the front portion.

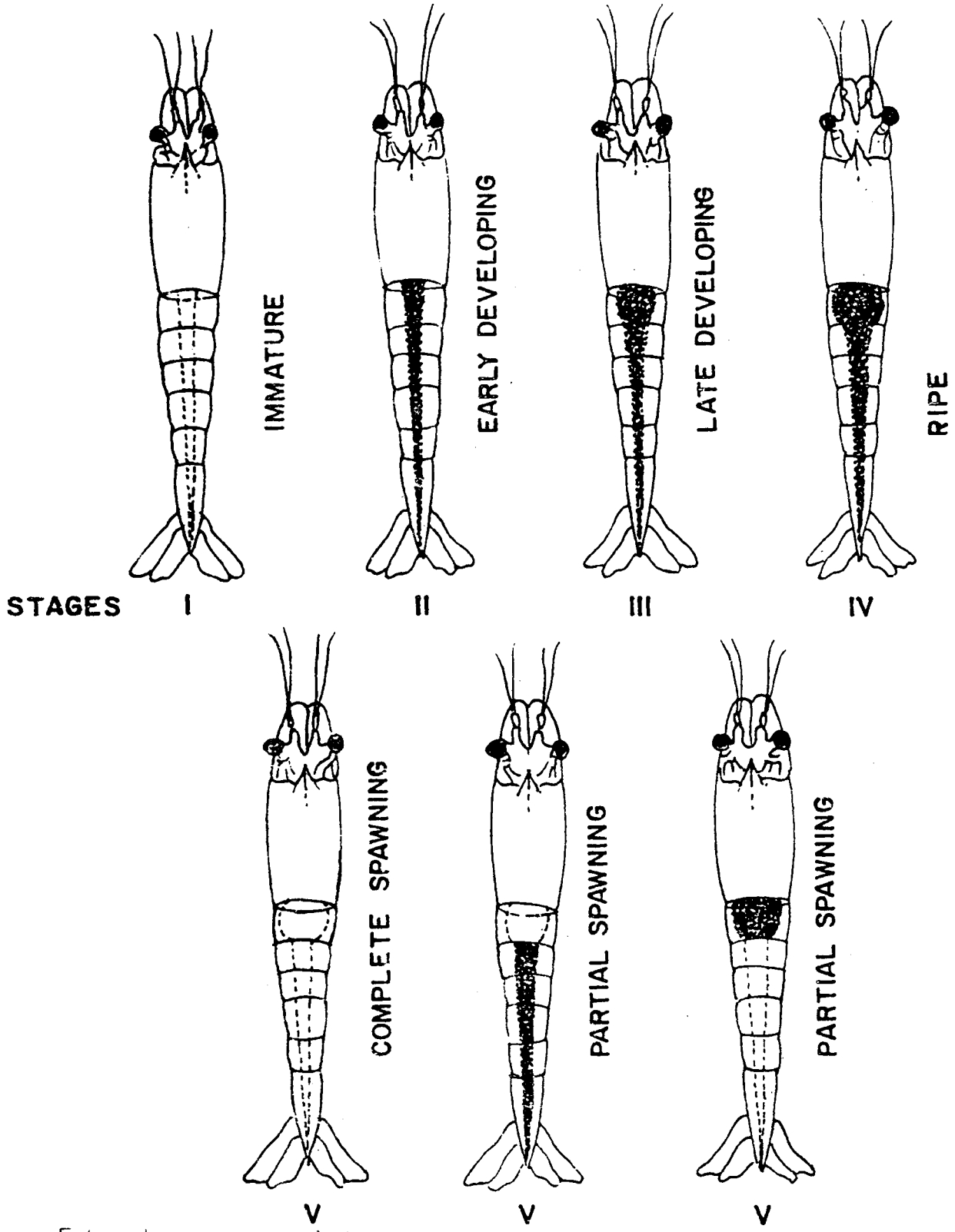
Stage IV or mature - The front enlargement is broader in the form of a diamond or an ear lobe; the linear band is broader.

Stages V or spent - Ovaries appear similar to stage I.

Stages II and IV prawns are ready to spawn and therefore command a higher price. Stages I and II are cheaper and can be used as broodstock.

To select good broodstock, check the health and lack of stress in both female and male prawns described earlier. In addition, check the sizes. Female should be 90 to 150 grams and males 50 to 100 grams in weight for broodstock purposes.

To differentiate female from male prawns, look at the underside of the prawn. Females have a flattened circular organ called the **thelycum** located between the fifth pair of walking legs. Males have protruding organ or **petasma** between the first pair of swimming legs that aids in the transfer of the sperm sacs from the male to the **thelycum** of the female.



External appearance of the ovaries of **Penaeus monodon** at different stages of maturity as seen through the dorsal exoskeleton (after Primavera, 1983).

Source: Lecture Notes of J. Honculada-Primavera, Head of Training Division, SEAFDEC Aquaculture Department, Tigbauan, Iloilo. 1987.