D-24: Reproductive behaviour and predator protection of pheasant tailed Jacana (*Hydrophasianus chirurgus)* in Deberawewa tank at Tissamaharama

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A study of the reproductive behaviour of Pheasant-tailed Jacana (*Hydrophasianus chirurgus*) was carried out from March to April 1997 (612h), in the Deberawewa tank at Tissamaharama. The observations were carried out by the naked eye and through the use of binoculars. Observations were recorded according to the one zero and focal animal sampling technique.

Ethogram analysis indicate a total of 42 reproductive events of behaviour. These events of behaviour were identified under 16 major reproductive behavioural

acts, such as pair bonding, nest building, nest accepting, nest avoiding, nest modification, mating, egg laying, incubation, subsequent nest formation, predator protection of nestlings and chicks, hatching out and formation of new pair bond.

Mating took a mean time of 4.1 ± 1.926 min. for each mating. The mean number of matings observed were 5.9 ± 1.101 times, during the egg laying period/pair. The mean clutch size was 4 ± 0.666. Incubation was done principally by the male. However, contrary to present understanding females too were involved in incubation for very short times. Incubation period lasted 21 ± 0.816 days.

It was also observed that, if the male was unable to protect its clutch, the bonded female left and formed new pair bond with another male. Eggs predation by crows (1.52 ± 1.08) was recorded as the highest. This accounted for more than 81.25% of mortality. Nestlings and clicks predation by White-breasted kingfisher (3), Shikara (6) and Brahminy Kite (3) were (0.18 ± 0.477) respectively.

Jacana were said to be polygamous (Greenwood & Jonathan, 1987), however it was observed that the female stayed around its nest and bonded male. The male would even chase away other males that approached the female and attempted to attract her by sexual enticing act. If the male was injured and unable to protect its clutch, he purposefully destroyed it.

As such it may be concluded that their reproductive success is very low at Debarawewa tank. These interesting observations in reproductive behaviour and high predation warrant extensive studies for identification of strategic survival values and mechanisms.