ABSTRACT

Larval ontogeny of *Stolephorus baganensis* and *Thryssa kammalensis* comprises three successive phases characterized by: (1) development of swimming appendages, (2) changes in allometric growth of various body parts, and (3) increase in body depth, as well as eye diameter, in the case of *S. baganensis*.

Both anchovy species are multiple spawners, spawning all year round but varying in intensity. Mass spawnings of *S. baganensis* start in the first (summer) inter-monsoon period and last for four months. This period is associated with changes in the wind field and increased rainfall, dissolved oxygen and food availability. The presence of mature adults during the second (winter) inter-monsoon period suggested another spawning season, but this was not substantiated by the larval study. Spawning peaks of *T. kammalensis* occur at approximately 3-month intervals, but are apparently not associated with the environmental parameters considered. The natural food production cycle and larval production of both species provide evidence to support the match-mismatch hypothesis.

S. baganensis spawn in clear and relatively deep coastal waters. At approximately 10.0 mm SL, larvae move towards shallower and more turbid waters where they remain until the juvenile stage (three-month old). Juveniles remain in coastal areas, living for approximately two years. *T. kammalensis* spawn in shallow turbid waters in the estuary. At approximately 10.0 mm SL, larvae move up the river where they remain until the juvenile stage, which subsequently migrate seawards to their maturation ground.