A NEW CESTODE \textit{INDICOVALIPORA KUNAHALIENSIS} N.SP. (EUCESTODA : DILEPIDIDAE) FROM \textit{VARANUS INDICUS}

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\textbf{ABSTRACT :}

The scolex of \textit{Indicovalipora kunhaliensis} n.sp. is medium, oval, the scolex bears four suckers which are medium, oval. Neck long, rectangular, longer than broad. Mature proglottids large, almost rectangular in shape. Testes medium, oval 90-95 (92). Cirrus pouch medium, oval, obliquely placed. Cirrus thin, long, coiled contained within the cirrus pouch. Ovary large, H-shaped, isthmus short, vagina is a narrow tube, anterior to the cirrus pouch. Ootype medium, anterioposteriorly elongated, situated in the concavity of the ovarian lobes, genital pores medium, oval, marginal, posterior to the middle region of the segment. Uterus medium, vitellaria follicular small, round, 2-3 rows, presence of excretory canals in the segment runs laterally.

\textbf{Key words :} Cestode, New species, \textit{Indicovalipora}, \textit{Varanus indicus}.

\textbf{INTRODUCTION :}

The genus \textit{Indicovalipora} was erected by Shinde and Deshmukh in 1985 from the intestine of \textit{Varanus indicus}, as type species \textit{I. marathwadaensis}. Later on they added three more species are added to this genus.

\textbf{MATERIALS AND METHOD :}

Seven specimens of the cestode parasites were collected from the intestine of \textit{Varanus, Varanus indicus} at Kunhali, Tal. Omerga Dist. Osmanabad, India in the month of September 2002. All the worms were flattened, fixed in 4% formalin, stained with Harris haematoxylin, passed through various alcoholic grades and mounted in D.P.X. Drawings are made with camera lucida. All measurements are in millimeters.

\textbf{DESCRIPTION :}

All the worms were long, thin, very delicate, with thin musculature with scolex, numerous immature and mature proglottids. The scolex is medium, oval, distinctly marked off from the strobila, broad in the middle narrow on both sides, tapering at the tip of the scolex, having 4 suckers and measures 0.320 in length and 0.305-0.493 in breadth. The scolex bears four suckers, which is medium, oval, arranged almost in a transverse row, with thin musculature, arranged in two pairs, one pair in each half of the scolex, may or may not slightly overlap on each other and measure 0.105-0.128 in length and 0.082-0.134 in width. The neck is long rectangular, longer than broad, broad anteriorly narrow posteriorly, with slightly convex lateral margins and measures 0.784-0.833 in length and 0.076-0.265 in width.

The mature proglottids are large, almost rectangular, longer than broad, almost two and half times longer than broad, with slightly convex, irregular, lateral margins without projections at the anterior and posterior corners of the segments and measure 0.897-3.084 in length and 1.178-1.32 in width. The testes are medium, oval to round, 90-95 (92), unevenly distributed, arranged in a single field, preovarian, situated from anterior margin of the segment, up to the ovary, from one lateral to the other lateral margin of the segments, expect the region of the uterus and gonads, bounded laterally by the longitudinal excretory canals, few overlapping on the ovarian lobes and measure 0.061-0.105 in length and 0.061-0.123 in width. The cirrus pouch is medium, oval, obliquely placed, broad in the middle, narrow proximally and distally, situated in the centre or slightly posterior to the middle of the segments and measure 0.365 in length and 0.105-0.175 in...
breadth. The cirrus is thin, long, coiled, contained within the cirrus pouch and measures 0.555 in length and 0.016 in breadth. The vas deferens is thin, long, coiled, crosses the the vagina, turns anteriorly and measures 2.381 in length and 0.018 in width. The ovary on either side is large, lobes anterio posteriorly elongated ‘H’ shaped, situated near the posterior margin of the segments, each ovarian lobe large, slightly equal in size with irregular margins, having numerous, short, blunt, round acini and measures 0.855-0.910 in length and 0.215-0.355 in width. The isthmus is short, connecting the two lobes of the ovary and measures 0.161 in length and 0.089 width.

The vagina is a narrow tube, anterior to the cirrus pouch, starts from the genital pore, runs medially, crosses the longitudinal excretory canals, turns posteriorly, crosses the isthmus, reaches and opens in to the ootype and measures 1.722 in length and 0.013 in breadth. The ootype is medium, anterio posteriorly elongated, situated in the concavity of the ovarian lobes and measures 0.264 in length and 0.052-0.061 in width. The genital pores are medium, oval, marginal, situated just posterior to the middle region of the segments, irregularly alternate and measure 0.167 in length and 0.347 in width. The uterus is medium starts from the ootype, forms a sack runs anteriorly, enlarges forming central stem and few short, blunt, round lateral diverticulae, straight near the anterior margin of the segments and measures 3.470 in length and 0.061-0.123 in breadth. The vitelaria are follicular small, round, 2-3 rows, on each lateral side and measure 0.018 in diameter.

**DISCUSSION:**

The genus *Indicovalipora marathwadaensis* is erected by Shinde and Deshmukh in 1985

After going through the literature, the worm under discussion, comes closer to *Indicovalipora marathwadaensis*, *Indicovalipora varanusi*, *Indicovalipora aurangabadensis*, *Indicovalipora pathriensis*.

- The present cestode differs from *Indicovalipora marathwadaensis* which is having the scolex large, oval, suckers small, rostellum with double crown of short, thin hooks, mature segments squarish, without projections, testes 120-125, round in two lateral groups, preovarian, cirruspouch oval, small, just posterior to the middle, ovary bilobed compact, posterior to the cirrus pouch, vitelline gland lobulated, consisting of three lobes and preovarian.
- The present form differs from *Indicovalipora varanusi* in having the scolex small, oval, suckers medium, rostellum with short, thin, with two circles of hooks, mature segments 3 times longer than broad, no projections, testes large, oval, 95-100 in number., preovarian, single field, cirrus pouch oval, medium at 1/3 from the posterior margin of the segments, lobes oval and vitellaria follicular, in 2-3 rows, round
- The present worm differs from *Indicovalipora aurangabadensis* in having the scolex oval, medium, with large suckers, rostellar hooks short, thin, scattered in the rostellum, in a single row, mature segments two times longer than broad, no projections , testes 110-115 in number, oval, medium, preovarian, cirrus pouch oval, elongated at 1/3 from the posterior margin of the segments, cirrus armed, ovary bilobed, lobes compact, directed posteriorly, near the posterior margin of the segments and vitellaria granular, with wide strips.
- The present form, differs *Indicovalipora patriensis* which is having the scolex small squarish, rostellar hooks short, single pronged, single circle of 20 hooks, mature segments longer than broad, rectangular, straight lateral margins, testes small, oval, round 150-160 in number, preovarian, evenly distributed in a single field, cirrus pouch small, oval, extends medially, up to 1/5th of the segments, vagina thin, posterior to the cirrus pouch, vitellaria granular, with thin strips in corticular region.

On the basis of the above, significant morphological variations, it is proposed, to accommodate the present cestodes, as a new species and hence the name *Indicovalipora kunhaliensis* n.sp. is proposed, after locality

**Type species**: *Indicovalipora kunhaliensis* n.sp.

**Host**: *Varanus indicus*

**Habitat**: Intestine

**Locality**: At. Kunhali, Tal.Omerga

Dist. Osmanabad,(M.S.) India.
Type specimens: Holotype and paratype are deposited in Helminthology Laboratory, Department of Zoology, Dr. B. A. M. University Aurangabad.

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