

GROSS COMPARATIVE ANATOMY OF BRANCHIAL, ANAL, & SUPRA-ANAL IN SOUTHEASTERN Elliptio

Species	Locality	LACM	Branchial papillae	Anal papillae	S-A*cor
E. dilatata (outgroup)	Clinch River, VA	80-83	2 rows compressed tentacular fused into 1 plane; inner & outer rows sparse; aperture width = 10 mm	crenulate margin; aperture width = 8 mm; aperture NE of PAM*; A/B ratio = 0.80	short
*****	*****	*****	*****	*****	*****
E. hopetonensis	Savannah River, at Augusta, GA	81-67	2 rows truncate tentacular; inner row sparse, outer row densely packed; aperture width = 16 mm	1 row short conical; aperture width = 13 mm; aperture E of PAM; A/B ratio = 0.81	short
*****	*****	*****	*****	*****	*****
E. dariensis (topotypic)	Ohoopsee River, GA Altamaha System	82-76	2 rows conical; inner row larger & sparse, outer row smaller & dense aperture width = 15 mm	1 row conical; aperture width = 10 mm; aperture SE of PAM; A/B ratio = 0.66	short
*****	*****	*****	*****	*****	*****
E. congaraea	Savannah River, at Augusta, GA	81-67	3 rows tentacular; inner row larger & sparse; (some bifurcated), middle row medium & common, outer row small & dense; aperture width = 16 mm	1 row conical; aperture width = 10 mm; aperture E of PAM; A/B ratio = 0.63	short
*****	*****	*****	*****	*****	*****
E. marsupiobesa	Rocky River, NC Cape Fear System	82-99	3 rows tentacular; all regularly spaced; inner row larger, middle row medium, outer row small; aperture width = 10 mm	1 row conical; aperture width = 5 mm; aperture E of PAM; A/B ratio = 0.50	short
*****	*****	*****	*****	*****	*****
E. complanata	Ottawa River, Quebec	85-25	3 rows tentacular; inner row larger, middle row medium, outer row small; aperture width = 15 mm	2 rows tentacular; equisized & regularly spaced; aperture width = 9 mm; aperture E of PAM; A/B ratio = 0.60	short

Species	Locality	LACM	Branchial papillae	Anal papillae	S-A con
<i>E. complanata</i> (cont.)	Smartwood, N.J.	ANSP	2 rows in 1 plane; both small tentacular; regularly spaced; inner row larger, outer row small; aperture width = 17 mm	1 row small tentacular; aperture width = 12 mm; aperture NE of PAM; A/B ratio = 0.71	short
ditto	Roanoke River, NC	82-91	2 rows tentacular; inner row sparse & large bifurcate tentacular, outer row dense conical; aperture width = 15 mm	2 rows in 1 plane; fused small tentacular; aperture width = 9 mm aperture NE of PAM; A/B ratio = 0.60	short
ditto = <i>livingstonensis</i> Lea, 1863	Livingston Creek, Cape Fear System	82-69	2 rows long tentacular; inner row dense & long, outer row dense & smaller; aperture width = 12 mm	1 row dense tentacular; aperture width = 10 mm; aperture NE of PAM; A/B ratio = 0.83	long
ditto	Beaver Creek, GA Ocmulgee System	82-83	2 rows tentacular; inner row sparse & large, outer row dense & smaller; aperture width = 11 mm	1 row conical; aperture width = 10 mm; aperture E of PAM A/B ratio = 0.91	short
ditto = <i>extensus</i> Lea, 1857	Uchee Creek, AL, Chattahoochee System	82-79	2 rows tentacular; inner row dense & long; outer row dense & smaller; aperture width = 9 mm	1 row tentacular; aperture width = 8 mm; aperture SE of PAM; A/B ratio = 0.88	short
***** <i>E. icterina</i>	Tar River, NC Ocmulgee System	82-94	3 rows conical; inner row sparse large, middle row sparse medium, outer row dense & small; aperture width = 7 mm	***** 1 row conical; aperture width = 7 mm; aperture NE of PAM; A/B ratio = 1.00	***** short
ditto = <i>micans</i> Lea, 1857	Rocky River, NC Cape Fear System	82-101	2 rows flat tentacular; both regularly spaced; inner row larger, outer row smaller; aperture width = 9 mm	1 row flat tentacular; aperture width = 8 mm; aperture SE of PAM; A/B ratio = 0.88	short

Species	Locality	LACM	Branchial papillae	Anal papillae	S-A con
<i>E. icterina</i> (cont.) = <i>lucidus</i> Lea, 1863	Livingston Creek Cape Fear System	82-70	3 rows tentacular; inner row sparse large, middle row sparse medium, outer row dense small; aperture width = 6 mm	margin crenulate; aperture width = 6 mm; aperture SE of PAM; A/B ratio = 1.00	short
ditto	Ghents Branch, SC Little Salkehatchie	81-68	2 rows conical; both regularly spaced; inner row large, outer row small; aperture width = 12 mm	1 row conical; aperture width = 11 mm; aperture E of PAM; A/B ratio = 0.92	short
ditto (topotypic)	Savannah River at Augusta, GA	82-88	2 rows tentacular; both regularly spaced; inner row large, outer row small; aperture width = 10 mm	1 row fused tentacular; aperture width = 7 mm; aperture NE of PAM; A/B ratio = 0.70	short
ditto	Buckhead Creek, GA Ogeechee System	82-87	1 row dense tentacular (some multi-branched); aperture width = 7 mm	1 row stubby tentacular; aperture width = 9 mm; aperture SE of PAM; A/B ratio = 1.29	short
ditto	Beaver Creek, GA Ocmulgee System	82-83	2 rows conical; inner row sparse & large, outer row dense & smaller; aperture width = 7 mm	1 row fused conical; aperture width = 6 mm; aperture E of PAM; A/B ratio = 0.86	short
ditto = <i>maconensis</i> Lea, 1857	Flint River, GA	82-81	2 rows tentacular; inner row sparse & large, outer row dense & smaller; aperture width = 7 mm	1 row fused conical; aperture width = 7 mm; aperture NE of PAM; A/B ratio = 1.00	medium
***** <i>E. waccamawensis</i> *****	Lake Waccamaw, NC	81-61	2 rows tentacular; inner row sparse & large, outer row dense & smaller; aperture width = 8 mm	1 row dense conical; aperture width = 7 mm; aperture E of PAM; A/B ratio = 0.88	short
*****	*****	*****	*****	*****	*****

Species	Locality	LACM #	Branchial papillae	Anal papillae	S-A con
E. fisheriana	Andover Branch, Chester River, MD	ANSP	3 rows tentacular; inner row sparse large, middle row dense medium, outer row dense small; aperture width = 14 mm	1 row fused tentacular; aperture width = 7 mm; aperture NE of PAM; A/B ratio = 0.50	very long with ostia
*****	Tar River, NC	81-80	2 rows conical; both regularly spaced; inner row large, outer row smaller; aperture width = 6 mm	1 row fused conical; aperture width = 6 mm; aperture SE of PAM; A/B ratio = 1.00	medium with ostia
*****	Livingston Creek Cape Fear System	82-70	2 rows long tentacular; rows layered; both dense medium; aperture width = 5 mm	1 row tentacular; aperture width = 5 mm; aperture NE of PAM; A/B ratio = 1.00	medium
*****	Waccamaw River, SC	83-128	2 rows tentacular; inner row sparse & large, outer row dense & smaller; aperture width = 9 mm	1 row dense tentacular; aperture width = 10 mm; aperture NE of PAM; A/B ratio = 1.11	short long
E. angustata (topotypic)	Cedar Creek, SC Congaree System	82-74	3 rows long tentacular; inner row sparse large, middle row common medium, outer row dense small; aperture width = 6 mm	2 rows tentacular; inner row larger, outer row smaller; aperture width = 6 mm aperture NE of PAM; A/B ratio = 1.00	very long
*****	Savannah River at Augusta, GA	82-88	2 rows conical; inner row dense large, outer row dense small; aperture width = 4 mm	1 row fused conical; aperture width = 4 mm; aperture SE of PAM; A/B ratio = 1.00	short
ditto	Savannah River at Ebenezer Creek	88-106	2 rows conical; inner row dense large, outer row dense small; aperture width = 7 mm	1 row fused conical; aperture width = 7 mm; aperture SE of PAM; A/B ratio = 1.00	long with ostia
*****					*****

Species	Locality	LACM #	Branchial papillae	Anal papillae	S-A con
E. naviculoides (Lea, 1857) (topotypic)	Buckhead Creek, GA Ogeechee System	82-87	2 rows tentacular; inner row larger & sparse; (some bifurcated), outer row small & dense; aperture width = 9 mm	1 row tentaculate; aperture width = 8 mm; aperture E of PAM; A/B ratio = 0.88	long with ostia
E. shepardiana	Little Ocmulgee R. Altamaha System	82-77	2 rows conical; inner row dense large, outer row dense small; aperture width = 10 mm	1 row dense conical; aperture width = 13 mm; aperture E of PAM; A/B ratio = 1.30	long with ostia
E. rostraeformis (Lea, 1856) (topotypic)	Swift Creek, GA Ockmulgee System	82-86	2 rows conical; inner row common large, outer row dense small; papillose fringe on ventral mantle margin; aperture width = 10 mm	2 rows tentacular; inner row larger, outer row smaller; aperture width = 6 mm; aperture E of PAM; A/B ratio = 0.60	long
E. attenuatus (Lea, 1872) (topotypic)	Beaver Creek, GA Ockmulgee System	82-83	2 rows conical; inner row sparse large, outer row dense small; no papillose fringe on ventral mantle margin; aperture width = 10 mm	1 row conical; aperture width = 12 mm; aperture SE of PAM; A/B ratio = 1.20	long with ostia

* S-A connection = Supra-anal connection

* PAM = Posterior Adductor Muscle

A/B ratio = Anal aperture width divided by Branchial aperture width