insects

Supplementary Materials: Comparative Studies on the Stenogamous and Eurygamous Behavior of Eight *Anopheles* Species of the Hyrcanus Group (Diptera: Culicidae) in Thailand

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Table S1. Frequency of inseminated grade based on sperm density in spermathecae of female mosquitoes of the eight species (10 cubic cm cage, DRS = 3.6).

Mosquito Species *	Grading of Sperm Density in Female Spermathecae **			
	1+	2+	3+	4+
An. peditaeniatus	28	30	52	66
An. argyropus	89	0	0	0
An. crawfordi	0	0	0	0
An. nigerrimus	61	24	2[a]	2[a]
An. nitidus	18	0	0	0
An. paraliae	28	4	10[b]	14[b]
An. pursati	114	26	12[c]	12[c]
An. sinensis	12	2	18[d]	2[d]

* Dissected 200 spermathecae/species; ** Chi-square test: a, b, c, d *vs. An. peditaeniatus* ($p < 0.05$).

Table S2. Frequency of inseminated grade based on sperm density in spermathecae of female mosquitoes of the eight species (20 cubic cm cage, DRS = 3.6).

Mosquito Species *	Grading of Sperm Density in Female Spermathecae **			
	1+	2+	3+	4+
An. peditaeniatus	29	23	35	97
An. argyropus	97	2	0	0
An. crawfordi	0	0	0	0
An. nigerrimus	38	56	11[a]	29[a]
An. nitidus	8	0	0	0
An. paraliae	77	10	9[b]	3[b]
An. pursati	93	26	21[c]	20[c]
An. sinensis	10	0	4[d]	32[d]

* Dissected 200 spermathecae/species; ** Chi-square test: a, b, c, d *vs. An. peditaeniatus* ($p < 0.05$).

Table S3. Frequency of inseminated grade based on sperm density in spermathecae of female mosquitoes of the eight species (30 cubic cm cage, DRS = 3.6).

Mosquito Species *	Grading of Sperm Density in Female Spermathecae **			
	1+	2+	3+	4+
An. peditaeniatus	9	37	28	21
An. argyropus	125	6	0	0
An. crawfordi	7	1	0	0
An. nigerrimus	63	60	4[a]	9[a]
An. nitidus	8	1	0	0
An. paraliae	59	13	5[b]	6[b]
An. pursati	89	67	8[c]	11[c]
An. sinensis	25	2	18[d]	15[d]

* Dissected 200 spermathecae/species; ** Chi-square test: a, b, c, d *vs. An. peditaeniatus* ($p < 0.05$).

Table S4. Frequency of inseminated grade based on sperm density in spermathecae of female mosquitoes of the eight species (10 cubic cm cage, DRS = 7.2).

Mosquito Species *	Grading of Sperm Density in Female Spermathecae **			
	1+	2+	3+	4+
An. peditaeniatus	15	5	25	95
An. argyropus	65	10	0	0
An. crawfordi	0	0	0	0
An. nigerrimus	44	14	14 [a]	9 [a]
An. nitidus	0	0	0	0
An. paraliae	52	10	0	4 [b]
An. pursati	100	10	0	12 [c]
An. sinensis	10	10	10 [b]	65 [d]

* Dissected 200 spermathecae/species; ** Chi-square test: a, b, c, d *vs. An. peditaeniatus* ($p < 0.05$).

Table S5. Frequency of inseminated grade based on sperm density in spermathecae of female mosquitoes of the eight species (20 cubic cm cage, DRS = 7.2).

Mosquito Species *	Grading of Sperm Density in Female Spermathecae **			
	1+	2+	3+	4+
An. peditaeniatus	12	4	22	156
An. argyropus	104	0	0	0
An. crawfordi	0	0	0	0
An. nigerrimus	100	4	4[a]	50[a]
An. nitidus	6	1	1[b]	0
An. paraliae	40	6	6[c]	36[b]
An. pursati	92	22	8[d]	38[c]
An. sinensis	62	6	6[e]	18[d]

* Dissected 200 spermathecae/species; ** Chi-square test: a, b, c, d, e *vs. An. peditaeniatus* ($p < 0.05$).

Table S6. Frequency of inseminated grade based on sperm density in spermathecae of female mosquitoes of the eight species (30 cubic cm cage, DRS = 7.2).

Mosquito Species *	Grading of Sperm Density in Female Spermathecae **			
	1+	2+	3+	4+
An. peditaeniatus	12	11	20	114
An. argyropus	138	1	0	0
An. crawfordi	1	0	0	0
An. nigerrimus	66	22	8 [a]	20 [a]
An. nitidus	2	0	1 [b]	0
An. paraliae	36	5	11[c]	18 [b]
An. pursati	68	5	0	8 [c]
An. sinensis	19	6	13 [d]	36 [d]

* Dissected 200 spermathecae/species; ** Chi-square test: a, b, c, d *vs. An. peditaeniatus* ($p < 0.05$).

Table S7. Frequency of inseminated grade based on sperm density in spermathecae of female mosquitoes of the eight species (40 cubic cm cage, DRS = 7.2).

Mosquito Species *	Grading of Sperm Density in Female Spermathecae **			
	1+	2+	3+	4+
An. peditaeniatus	18	38	42	80
An. argyropus	82	0	0	0
An. crawfordi	1	4	0	0
An. nigerrimus	46	24	7[a]	7[a]
An. nitidus	17	1	0	0
An. paraliae	60	0	5[b]	5[b]
An. pursati	85	4	0	4[c]
An. sinensis	44	0	2[c]	2[d]

* Dissected 200 spermathecae/species; ** Chi-square test: a, b, c, d *vs. An. peditaeniatus* ($p < 0.05$).

Table S8. Comparisons of the results of statistical analyses of male genital measurements for the eight species of the Hyrcanus Group.

Character	Mosquito Species		*p*-Value
Length of aedeagus	*An. peditaeniatus vs.*	*An. argyropus*	0.000 *
		An. crawfordi	0.001 *
		An. nigerrimus	0.884
		An. nitidus	0.000 *
		An. paraliae	0.477
		An. pursati	1.000
		An. sinensis	0.000 *
Width of aedeagus	*An. peditaeniatus vs.*	*An. argyropus*	0.252
		An. crawfordi	0.025 *
		An. nigerrimus	0.294
		An. nitidus	1.000
		An. paraliae	1.000
		An. pursati	0.194
		An. sinensis	0.017 *
Length between base of aedeagus and origin of gonocoxite (right)	*An. peditaeniatus vs.*	*An. argyropus*	0.620
		An. crawfordi	0.889
		An. nigerrimus	0.493
		An. nitidus	0.958
		An. paraliae	0.955
		An. pursati	0.984
		An. sinensis	0.009 *
Length between base of aedeagus and origin of gonocoxite (left)	*An. peditaeniatus vs.*	*An. argyropus*	0.546
		An. crawfordi	0.987
		An. nigerrimus	0.419
		An. nitidus	0.962
		An. paraliae	0.733
		An. pursati	0.930
		An. sinensis	0.013 *
Width of gonocoxite at origin of parabasal seta (right)	*An. peditaeniatus vs.*	*An. argyropus*	0.809
		An. crawfordi	0.000 *
		An. nigerrimus	0.000 *
		An. nitidus	0.014 *
		An. paraliae	0.015 *
		An. pursati	0.876
		An. sinensis	0.000 *
Width of gonocoxite at origin of parabasal seta (left)	*An. peditaeniatus vs.*	*An. argyropus*	0.921
		An. crawfordi	0.017 *
		An. nigerrimus	0.000 *
		An. nitidus	0.001 *
		An. paraliae	0.016
		An. pursati	0.668
		An. sinensis	0.000 *

Table S8. *Cont.*

Character	Mosquito Species		*p*-Value
Length of gonocoxite (right)	*An. peditaeniatus vs.*	*An. argyropus*	1.000
		An. crawfordi	1.000
		An. nigerrimus	0.000 *
		An. nitidus	0.000 *
		An. paraliae	0.000 *
		An. pursati	1.000
		An. sinensis	0.000 *
Length of gonocoxite (left)	*An. peditaeniatus vs.*	*An. argyropus*	1.000
		An. crawfordi	1.000
		An. nigerrimus	0.000 *
		An. nitidus	0.000 *
		An. paraliae	0.000 *
		An. pursati	1.000
		An. sinensis	0.000 *
Length of gonostylus (right)	*An. peditaeniatus vs.*	*An. argyropus*	0.002 *
		An. crawfordi	0.000 *
		An. nigerrimus	0.000 *
		An. nitidus	0.000 *
		An. paraliae	0.000 *
		An. pursati	0.010 *
		An. sinensis	0.000 *
Length of gonostylus (left)	*An. peditaeniatus vs.*	*An. argyropus*	0.002 *
		An. crawfordi	0.000 *
		An. nigerrimus	0.000 *
		An. nitidus	0.000 *
		An. paraliae	0.000 *
		An. pursati	0.010 *
		An. sinensis	0.000 *
Ratio length and width of gonocoxite	*An. peditaeniatus vs.*	*An. argyropus*	0.646
		An. crawfordi	0.013 *
		An. nigerrimus	1.000
		An. nitidus	0.997
		An. paraliae	0.646
		An. pursati	0.739
		An. sinensis	0.018 *
Ratio length and width of gonocoxite + gonostylus	*An. peditaeniatus vs.*	*An. argyropus*	0.443
		An. crawfordi	0.013 *
		An. nigerrimus	0.000 *
		An. nitidus	0.000 *
		An. paraliae	0.000 *
		An. pursati	0.512
		An. sinensis	0.000 *

* Significantly different ($p < 0.05$, Tukey's HSD test).