

The Embryonic Development of the Cricket (*Gryllus Bimaculatus*) Nervous System

Sara Morcos, Class of 2024

Vj g"J qtej 'rxd'ku'lpvgtgungf 'lp'vj g'etkengv'o qf gn'u{ ugo . f vq'v'vj g'lpvgtgukpi "dgj cxkqt'etkengv r tqf weg'y kj "c'tgrv'xgn{ 'uko r ng'pgrxqwu'u{ ugo 0Cf f kxkqpcn{ . uelgp'kxuu'j cxg'i ckgf 'cp'lpvgtguk'lp etkengv'dgecwug'r j { nqi gpgv'ecm{ . 'vj g' 'ctg'o qtg'emqun{ tgrv'gf "v'vj g'cpegutcn'lpugev'cu'qr r qugf "v'vj g'gzv'pukxgn{ 'uww'kgf 'f tqur j kx'cpf 'i tcuuj qr r gtu0D{ ngct'kpi "o qtg'cdq'w'vj g'r qqt'nf 'lp'xguki cvgf f gxgnr o gpv'qh'vj g'etkengv'egp'tcn'pgrxqwu'u{ ugo *EP U+'f gxgnr o gpv.'y g'ecp'eqpf we'veqo r ctc'v'xg uww'kgu'hq'qnkpi "cv'vj g'f gxgnr o gpv'qh'j qm'o g'vcd'q'w'w'lpugev'v'q'w'pf gtu'c'p'f 'vj g'f h'gt'gpv'f gxgnr o gpv'cn r tqegu'gu'vj g'f 'w'pf gti q0

Vj g'i qcn'qh'o { 'r tq'ge'v'y cu'v'lp'xguki cvg'vj g'go dt { qple f gxgnr o gpv'qh'vj g'etkengv. *Gryllus Bimaculatus*0Ur geh'ecm{ . 'K'he'w'ugf "qp'vj g'f gxgnr o gpv'qh'go dt { qple'uci gu'80/; 0'F'qp'q'w' j g'gv'cn 4238+0'k'p'q'tf g't'v'f'q'v'j ku.'K'ht'uv'eqm'ge'v'g'gi i u'rc'k'f'lp'etkengv'd'k'pu'c'p'f 'ugv'w' 'y q'v'gu'v'eq'p'f k'k'q'pu'c' r q'ng'f *gzr g't'ko gpv'cn+'c'p'f 'w'p' r q'ng'f "e'q'p't'q'n'go dt { qu'0'k'p'q'tf g't'v'ec're'w'v'g'w'w'x'k'c'n't'c'v'g. 'vj g'g'p'x'k'q'p'o gpv'cn eq'p'f k'k'q'pu'ht' r' r' q'ng'f "c'p'f 'w'p' r q'ng'f "go dt { qu't'go c'k'p'g'f 'y g'uc'o g'0V'j cv'ku.'dq'v' 'y g't'g'r'w'lp'y g'n'l' r'v'gu'y kj J GRGU'D'w'ht'g'f 'U'c'n'p'g'*J DU+'U'q'nr'wk'q'p'y kj "3" 'R'g'p'k'c'n'k'p/U't'g'r'v'q'o { e'k'p' *RIU+'y kj 'vj g'g'z'r g't'ko gpv'cn r'v'g'd'g'k'p'i 'vj g'go dt { qu'r' q'ng'f 'y kj "c'p'lp'g'v'k'p'p'g'g'f ng'0Q'p'eg'g'p'q'w' j "e'q'p't'q'n'v' g't'g'eq'm'ge'v'g'f . "uc'p'f r'v'gu'q'h'w'p' r q'ng'f "go dt { qu'y g't'g'ugv'w' 'r'w't'gn'f 'h'q't'x'k'w'c'k'f' c'v'q'p' v'j t'q'w' j "c'p'k'o o w'p'q' k'v'q'ej go k'w't' { *K' E+ r tq'eg'f w't'g'0

Cv'ht'uv.'cej k'g'x'k'p'i "c'w'w'x'k'c'n't'c'v'g.'r'c't'v'w'c'w'c'n'f 'h'q't'v'j g'r' q'ng'f "go dt { qu.'y cv'y cu'q'p'r'c't'y kj r t'g'x'k'w'u'w'f k'g'u'y cu't'k'len'f 0R'w'd'k'ec'v'k'p'u'w'ej 'cu' Dctt { "g'v'cn'lp'f'k'ec'v'g'f "g'f "g'g' f`c`k`b'q'ng'f'q'f'ev' k'f'f'c'w'w'c'f'y'c'j'c`k`b'w'k'k'q'p'

o qtg'ht'gs wgpv'nf .x'ki k'c'p'v'nf 't'go q'x'k'p'i 'f'g'c'f "gi i u.'c'p'f c'n'g't'k'p'i "vj g'r' q'n'k'p'i "gti q'p'q'o leu.'c'm'q' g'f "c'w'w'x'k'c'n' t'c'v'g'qh'34: B84*9; 023" +'h'q't'v'j g'r' q'ng'f "go dt { qu'0

Q'p'eg'y g'cu'gu'ug'f "w'w'x'k'c'n't'c'v'g'u.'y g'd'gi c'p'go dt { qple f k'uge'v'k'p'u'q'p'f'c { u'5/8'c'h'g't'v'j g'g'i i u'y g't'g' r'c'k'f 'y j le'j "e'q't't'g'ur q'p'f'g'f "v'vj g'g'i i 'uci gu'y g'y g't'g'lp'v'gt'g'ung'f 'lp'0'V'j g'f' k'uge'v'g'f "go dt { qu'y g't'g'f'k'z'g'f "c'p'f w'p'f g't'y gpv'c'p'K' E'w'c'k'p'k'p'i "lp'q't'f g't'v'x'k'w'c'k'f' g'v'j g'f gxgnr k'p'i "p'g'w'q'p'u'0

Q'w't'g'u'w'u'eq'p'h't'o g'f "c'f' gxgnr k'p'i "EP U'y j g't'g'y g'eq'w'f' x'k'w'c'k'f' g'v'j g'd't'c'k'p.'v'j g'v'j t'g'g'v'j q't'c'el'e i c'p'i r'c.'c'p'f "c'm'v'j g'c'd'f'q'o k'p'c'n'i c'p'i r'c'00 q'x'k'p'i 'h'q't'y c't'f . y g'j' q'r g'v'q'eq'o r'ng'v'j g'go dt { qple'k'o g'n'p'g'h'q't' v'j g'w'p' r q'ng'f "c'p'f 'r' q'ng'f "eq'p'f k'k'q'pu'q'p'f'c { u'6/8'CO (RO +0H'w'v'j g't'o q't'g.'d { 'w'p'f g't'u'c'p'f' k'p'i "v'j g'p'q't'o c'n' f'gxgnr o gpv.'y g'ecp'd'gi k'p'v'q'o c'p'k'r'w'v'g'r' t'g'x'k'w'w'nf 'e'j c't'c'ev'g't'k'f'g'f 'i'w'k'f'c'p'eg'o q'ng'ew'g'u'np'q'y p'cu' u'go c'r j q't'k'p'u'0U'go c'r j q't'k'p'u'r'c' { "c't'q'ng'lp'EP U'c'ue'k'w'v'k'q'p' c'p'f "r' t'g'x'g'p'v'c'd'p'q't'o c'n'o k'f' r'k'p'g'et'q'u'k'p'i 0U'q. d { "n'p'q'c'n'k'p'i "f'q'y p'v'j g'ug'o q'ng'ew'g'u'w'uk'p'i "f'q'w'd'ng'w'c'p'f'g'f T'P'C.'y g'ecp'c'p'c'n'f | g'v'j g'eq'p'ug's w'g'p'v'k'o r'c'ew'k'v' j cu'q'p'v'j g'et'k'eng'v'w'EP U'p' " .eg j'g'p'

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References:

F qpqwi j g'U.'Gzvcxqwt'EI 042380Go dt { qple'f gxgrqr o gpvqh'vj g'etlengv *Gryllus bimaculatus*.
F gxgrqr o gpvqn'Dkqrqi {0633*3+362/3780