

THE J. PEDRO DURET MOSQUITO COLLECTION (DIPTERA: CULICIDAE)¹

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ABSTRACT. Acquisition of the J. Pedro Duret mosquito collection by the Smithsonian Institution is reported. The collection contains more than 14,000 individually pinned and labeled adult mosquitoes, including 39 primary type specimens. It also includes some 7,800 male genitalia preparations and 900 larval and pupal exuviae on microscope slides. A complete list of Duret species-group names is included, with label data for holotype specimens contained in the collection.

INTRODUCTION

The mosquito collection of Dr. J. Pedro Duret of Buenos Aires, Argentina is now the property of the Smithsonian Institution. In July 1990, this extensive collection was purchased by the National Museum of Natural History (NMNH) and successfully packed and shipped to Washington, DC by E.L. Peyton and Richard C. Wilkerson of the Walter Reed Biosystematics Unit. The collection was acquired through the joint efforts of Wayne N. Mathis, Department of Entomology, NMNH, Smithsonian Institution and the senior author. Funds for the purchase were obtained from the Smithsonian Collections Acquisition Program.

Dr. Duret's collection is an outstanding addition to the NMNH Mosquito Collection. It includes over 14,000 pinned, identified adults, representing nearly 500 species, or about 55% of the known fauna of Middle and South America. Some 7,800 specimens have associated dissected genitalia and another 900 have associated larval and pupal exuviae on microscope slides. The collection also contains 39 holotypes, 5 allotypes, and 135 paratypes of species named by Dr. Duret. A general inventory of the contents of the collection is provided in Table 1. The material constitutes the most complete mosquito collection ever assembled for Argentina, and also includes extensive series of specimens from Paraguay and Brazil and many excellent series from several other countries. The individual specimens were collected, expertly prepared and curated, and authoritatively identified by Dr. Duret while he served as a medical entomologist with the Argentine Army and a consultant for the Pan American Health Organization. The labels and collection records associated with the specimens bear ecological and behavioral data of importance to current and future studies on the mosquito fauna

of the Neotropical Region.

Dr. Duret's collection was the last major mosquito collection in private hands. For New World mosquitoes, it ranks second in importance after the J.N. Belkin collection which was acquired by the Smithsonian Institution in 1981.

THE MOSQUITOES NAMED BY J. PEDRO DURET

The Duret species represented by type specimens now residing in the Smithsonian Institution are listed here in alphabetical order. The following information is provided for each species name: reference to the original description; current generic and subgeneric placement or taxonomic status; verbatim label data from the holotype; and the number of secondary type specimens. Some secondary type specimens are deposited in other collections. The original publications should be consulted for the whereabouts of these specimens.

aliciae Duret, 1953:75; 1954a:106. *Culex (Melanoconion)*. Holotype male: "2.V.49/Argentina/Misiones/Cerro Azul/Col. DURET/[underside of label] Mis.13.8//HOLOTIPO//Culex (Melanoc.)/aliciae sp. n./J.P. Duret Det. 1952." Paratypes - 6 males.

bahiensis Duret, 1969b:40. *Culex (Melanoconion)*. Holotype male: "VIII.53/Brazil/Bahia/Urucuca/Col. Duret/[underside of label] 2427/Br.17./E.9//HOLOTIPO//2427//Culex (Melanoc.)/bahienese sp. n./J.P. Duret - Det. 1969." Paratypes - none.

bejaranoi Duret, 1953:75; 1954a:109. *Culex (Melanoconion)*. Holotype male: "18.III.51/Argentina/Misiones/B. de Irigoyen/Col. DURET/[underside of label] C.M.P.H.M./A.U.93.20//HOLOTIPO//Culex (Melanoc.)/bejaranoi sp. n./J.P. Duret - Det. 1952." Paratypes - 2 males.

belemensis Duret and Damasceno, 1955: 404. *Culex (Anoedioporpa)*, originally placed in the subgenus *Tinolestes*. Holotype male: "15.VIII.53/Brasil/PARA/Belem/Col. Duret/[underside of label] Br.15/E.10/

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Table 1. Summary of the contents of the J. Pedro Duret mosquito collection. Twenty-two genera, 53 subgenera, and at least 497 described species are represented in the collection.

Genus	No. subgenera	No. species
<i>Anopheles</i>	6	55
<i>Chagasia</i>	1	3
<i>Aedeomyia</i>	1	1
<i>Aedes</i>	5	41
<i>Haemagogus</i>	1	12
<i>Psorophora</i>	3	30
<i>Culex</i>	8	174
<i>Deinocerites</i>	1	10
<i>Culiseta</i>	2	3
<i>Coquillettidia</i>	1	11
<i>Mansonia</i>	1	8
<i>Orthopodomyia</i>	1	3
<i>Johnbelkinia</i>	1	3
<i>Limatus</i>	1	7
<i>Phoniomyia</i>	1	12
<i>Sabethes</i>	4	18
<i>Shannoniana</i>	1	1
<i>Runchomyia</i>	3	6
<i>Trichoprosopon</i>	1	8
<i>Wyeomyia</i>	6	63
<i>Uranotaenia</i>	1	19
<i>Toxorhynchites</i>	2	9

4012//HOLOTIPO//4012//*Culex* (*Tinolestes*)/belemensis sp. n./J.P. Duret - Det. 1955/& Damasceno." Paratypes - none.

chitae Duret, 1967b:113. *Culex* (*Culex*). Holotype male: "I.60/Colombia/Bogota/Monserrat/Col. Duret/[underside of label] 2,900 m/#334//HOLOTIPO//334//*Culex* (*Culex*)/chitae sp. n./J.P. Duret - Det. 1967." Paratype - 1 male.

contei Duret, 1968c:121. *Culex* (*Melanoconion*). Holotype male: "9.VII.63/Brasil/PARA/S. Miguel do/Guama/[underside of label] Col. Duret/2226//HOLOTIPO//2226//*Culex* (*Melanoc.*)/contei sp. n./J.P. Duret - Det. 1968." Paratype - 1 male.

crisovaoi Duret, 1968a:14. *Culex* (*Melanoconion*). Holotype male: "7.VII.64/Brasil/Roraima/Caracarai/Col. Duret/[underside of label] 1883//HOLOTIPO//1883//*Culex* (*Melanoc.*)/crisovaoi sp. n./J.P. Duret - Det. 1968." Paratypes - none.

cuyanus Duret, 1968d:323. *Culex* (*Culex*). Holotype male: "XI.53/Argentina/S. Juan/Jachal/Col. DURET/[underside of label] 768//HOLOTIPO//768//*Culex* (*Culex*)/cuyanus sp. nov./J.P. Duret - Det. 1967." Paratypes - 6 males.

damasceni Duret, 1969c:143. *Culex* (*Anoediopora*).

Holotype male: "18.VII.64/Brasil/Amazonas/J. Goulard/rio Preto/Col. DURET/[underside of label] 2275//HOLOTIPO//2275//*Culex* (*Anoediop.*)/damasceni sp. n./J.P. Duret - Det. 1969." Paratypes - none.

delpontei Duret, 1969a:8. *Culex* (*Melanoconion*). Holotype male: "16.XI.49/Argentina/Chaco/Las Palmas/Col. Duret/[underside of label] 2177/A.51.20//HOLOTIPO//2177//*Culex* (*Melanoc.*)/delpontei sp. n./J.P. Duret - Det. 1968." Paratypes - 5 males.

dominguezi Duret, 1971b:83. Currently regarded as a junior synonym of *Haemagogus* (*Haemagogus*) *anastasionis* Dyar; originally placed in the subgenus *Stegoconops*. Holotype male: "1961/Nicaragua/Elaya/Col. Duret/[underside of label] Dominguez/leg./HOLOTIPO//7258//*Haemagogus* (*Steg.*)/dominguezi sp. n./J.P. Duret - Det. 1971." Paratypes - none.

ernanii Duret, 1968f:74. *Culex* (*Melanoconion*). Holotype male: "9.VII.64/Brasil/Roraima/Boa Vista/Col. Duret/[underside of label] 1730//HOLOTIPO//1730//*Culex* (*Melanoc.*)/ernanii sp. n./J.P. Duret - Det. 1967." Paratypes - none.

faurani Duret, 1968f:77. *Culex* (*Melanoconion*). Holotype male: "28.VI.63/Brasil/Amazonas/Manaos/Col. Duret/[underside of label] 1940//HOLOTIPO//1940//*Culex* (*Melanoc.*)/faurani sp. n./J.P. Duret - Det. 1967." Paratypes - 2 males.

ferraro Duret, 1971a:25. Currently regarded as a junior synonym of *Psorophora* (*Janthinosoma*) *varipes* Coquillett. Holotype male: "15.VI.62/El Salvador/La Libertad/Rio Amargo/Col. Duret//HOLOTIPO//6466//*Psorophora* (*Janthino-/soma*) ferraro sp. n./J.P. Duret - Det. 1971." Paratypes - 4 males.

ferreri Duret, 1968f:79. *Culex* (*Melanoconion*). Holotype male: "22.III.61/Colombia/N. Santander/Cucuta/Col. Duret/[underside of label] Agua Clara/localidad/#51//HOLOTIPO//51//*Culex* (*Melanoc.*)/ferreri sp. n./J.P. Duret - Det. 1967." Paratypes - 9 males.

flochi Duret, 1969d:119. *Culex* (*Melanoconion*). Holotype male: "21.VIII.53/Brasil/Para Moju/Yaguarari/Col. Duret/[underside of label] 2283//HOLOTIPO//2283//*Culex* (*Melanoc.*)/flochi sp. n./J.P. Duret - Det. 1969." Allotype female; paratypes - 9 females and 18 males.

galvaoi Duret, 1968b:60. *Culex* (*Melanoconion*), originally placed in the subgenus *Mochlostyrax*. Holotype male: "15.VII.53/Brasil/E. de Rio/Chere/Col. Duret/[underside of label] 2414//HOLOTIPO//2414//*Culex* (*Mochlostyrax*)/galvaoi sp. nov./J.P. Duret - Det. 1968." Paratypes - none.

garcesi Duret, 1968b:63. *Culex* (*Melanoconion*), originally placed in the subgenus *Mochlostyrax*. Holotype male: "17.I.60/Colombia/Dep. Choco/Quibdo/Col. Duret/[underside of label] 3354//HOLOTIPO//3354//*Culex* (*Mochlostyrax*)/garcesi sp. nov./J.P. Duret - Det. 1968." Paratypes - none.

gorgasi Duret, 1971a:15. *Sabethes* (*Sabethinus*). Holotype

- male: "26.VIII.58/Panama/Rio Chagres/Juan Mina/Col. Duret//HOLOTIPO//5814//Sabethes (Sabethinus) gorgasi sp. n./J.P. Duret Det. 1971." Paratypes - none.
- gutiérrezi** Duret, 1971a:17. *Wyeomyia (Dendromyia)*. Holotype male: "28.IX.61/Costa Rica/Cton. Aguirre/Distr. Savegre/El Paso/[underside of label] Col. Duret//HOLOTIPO//5873//Wyeomyia (Dendro-/myia) gutierrezii sp. n./J.P. Duret - Det. 1971." Paratypes - none.
- isabellae** Duret, 1968f:72. *Culex (Melanoconion)*. Holotype male: "3.VII.64/Brasil/Roraima/Caracarai/Col. Duret/[underside of label] 1925//HOLOTIPO//1925//Culex (Melanoc.)/isabellae n. sp./J.P. Duret - Det. 1967." Paratypes - none.
- johnnyi** Duret, 1968e:17. *Culex (Melanoconion)*. Holotype male: "18.VII.64/Brasil/Amazonas/J. Goulard/Col. Duret/[underside of label] rio Preto/723//HOLOTIPO//723//Culex (Melanoc.)/johnnyi sp. n./J.P. Duret Det. 1968." Paratypes - none.
- kerri** Duret, 1968a:11. Currently regarded as a junior synonym of *Culex (Melanoconion) phlabistus* Dyar. Holotype male: "17.VII.64/Brasil/Amazonas/Joao Goulard/Col. Duret/[underside of label] Rio Preto/1858//HOLOTIPO//1858//Culex (Melanoc.)/kerri sp. n./J.P. Duret - Det. 1968." Paratypes - 1 male.
- misionensis** Duret, 1953:75; 1954a:115. *Culex (Melanoconion)*. Holotype male: "23.II.51/Argentina/Misiones/Arist. del Valle/Col. DURET/[underside of label] C.M.P.H.M./A.U.23.14//HOLOTIPO//Culex (Melanoc.)/misionensis sp. n./J.P. Duret - Det. 1952." Paratypes - none.
- mojuensis** Duret and Damasceno, 1955:401. Currently regarded as a junior synonym of *Culex (Tinolestes) breviculus* Senevet and Abonnenc. Holotype male: "22.VIII.53/Brasil/PARA/Oriboca/Col. Duret/[underside of label] Br.49/E.4/4013//HOLOTIPO//4013//Culex (Tinolestes)/mojuensis sp. n./J.P. Duret - Det. 1955/& Damasceno." Allotype female.
- nicaroensis** Duret, 1967a:77. *Culex (Melanoconion)*. Holotype male: "9.VI.59/CUBA/Oriente/Mayari/Nicaro/Col. DURET/[underside of label] en Cuba/de Cangrejo/#1611//HOLOTIPO//1611//Culex (Melanoc.)/nicaroensis sp. n./J.P. Duret - Det. 1967." Allotype female; paratypes - 3 females, 8 males.
- orfilai** Duret, 1953:74; 1954a:117. *Culex (Melanoconion)*. Holotype male: "21.XI.51/Argentina/Misiones/Iguazu/Col. Duret/[underside of label] C.M.P.H.M./D.O.69.20//HOLOTIPO//Culex (Melanoc.)/orfilai sp. n./J.P. Duret Det. 1952." Paratypes - 4 males.
- palaciosi** Duret, 1968e:15. *Culex (Melanoconion)*, originally placed in the subgenus *Mochlostyrax*. Holotype male: "8.VII.64/Brasil/Roraima/Boa Vista/Col. Duret/[underside of label] 1817//HOLOTIPO//1817//Culex (Mochlost.)/palaciosi sp. n./J.P. Duret Det. 1967." Paratypes - 15 males.
- paramaxi** Duret, 1968b:57. *Culex (Culex)*. Holotype male: "6.V.64/Brasil/M. Gerais/Ing. Dolabella/Col. Duret/[underside of label] 672//HOLOTIPO//672//Culex (Culex)/paramaxi sp. n./J.P. Duret - Det. 1968." Paratypes - none.
- pereyrai** Duret, 1967a:81. *Culex (Melanoconion)*. Holotype male: "25.X.55/Paraguay/Caaguazu/Cecilio Baez/Col. Duret/[underside of label] 1390//HOLOTIPO//1390//Culex (Melanoc.)/pereyrai/J.P. Duret - Det. 1967." Paratypes - none.
- pilosus** Duret, 1971a:22. *Psorophora (Janthinosoma)*. Holotype male: "3.XI.60/Colombia/N. Santander/Mun. Cucuta/Agua Clara/[underside of label] Col. Duret//HOLOTIPO//6452//Psorophora (Janthino-/soma pilosus sp. n./J.P. Duret - Det. 1971." Paratypes - none.
- pseudoalbipes** Duret, 1971a:20. *Psorophora (Janthinosoma)*. Holotype male: "8.XI.60/Colombia/Dep. N. de Santander/Munic. Cucuta/Tibu/[underside of label] Col. Duret//HOLOTIPO//6182//Psorophora (Janthino-/soma) pseudoalbipes sp. n./J.P. Duret - Det. 1971." Paratypes - none.
- quasioriginator** Duret, 1972:3. *Culex (Anoediopora)*. Holotype male: "16.I.63/Brasil/Para. Belem/Pirelli/Col. Duret//HOLOTIPO//1334//Culex (Anoed.)/quasioriginator sp. n./J.P. Duret - Det. 1971." Paratypes - 15 males.
- rachoui** Duret, 1968b:58. *Culex (Melanoconion)*. Holotype male: "24.VI.64/Brasil/Para. Capin/Paragominas/Col. Duret/[underside of label] 2256//HOLOTIPO//2258 [sic]//Culex (Melanoc.)/rachoui sp. nov./J.P. Duret - Det. 1968." Paratypes - 2 males.
- riojanus** Duret, 1968d:326. *Culex (Culex)*. Holotype male: "17.XI.53/Argentina/La Rioja/Chamical/Col. DURET/[underside of label] 777//HOLOTIPO//777//Culex (Culex)/riojanus sp. nov./J.P. Duret - Det. 1967." Paratypes - 3 males.
- riverai** Duret, 1970:43. *Uranotaenia (Uranotaenia)*, originally without subgeneric placement. Holotype male: "20.I.60/Colombia/Bogota/2700 m./Col. Duret/[underside of label] en casa//HOLOTIPO//5596//Uranotaenia/riverai sp. nov./J.P. Duret - Det. 1970." Allotype female; paratypes - 1 female, 1 male.
- silvai** Duret, 1968f:69. *Culex (Melanoconion)*. Holotype male: "6.VII.64/Brasil/Roraima/Caracarai/Col. Duret/[underside of label] 85//HOLOTIPO//85//Culex (Melanoc.)/silvai sp. n./J.P. Duret Det. 1967." Paratypes - none.
- sirivanakarni** Duret, 1982:167. *Wyeomyia (Dendromyia)*. Holotype male: "1.1958/Panama/Darien/Col. Duret/[underside of label] J.O. Conte leg//HOLOTIPO//5862//Wyeomyia (Dendr.)/sirivanakarni sp. n./J.P. Duret - Det. 1982." Paratypes - none.
- tramazayguesi** Duret, 1954b:23. *Culex (Allimanta)*, originally placed in the subgenus *Culex*. Holotype male:

"16.XII.53/Mendoza/Monte Coman/Col. D.H.M.P/M.R.110/E.1//HOLOTIPO//Culex (Culex)/tramazayguesi/sp. n./J.P. Duret - Det. 1954." Allotype female; paratypes - 12 females, 7 males.

During his career, Dr. Duret described three mosquito species with M. Pereira Barreto, but did not retain type specimens of these in his personal collection. The three species include *aureonotatus* Duret and Barreto, 1956: 91; *bifoliolatus* Duret and Barreto, 1956:96; and *trilobatus* Duret and Barreto, 1956:93. The type specimens of these nominal species were deposited in the Departamento de Parasitologia da Faculdade de Medicina, Ribeirao Preto, São Paulo, Brazil. They are currently regarded as valid species within the subgenus *Melanoconion* of *Culex*.

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