

## AN UPDATED CHECKLIST OF THE MOSQUITOES OF NEW JERSEY<sup>1</sup>

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**ABSTRACT.** The last checklist of New Jersey mosquitoes was published in 1983 and contained 59 species from 10 genera. Since that time 4 additional species have been collected in New Jersey: *Aedes thibaulti*, *Aedes infirmatus*, *Aedes aegypti*, and *Aedes albopictus*. *Aedes aegypti* was not able to overwinter and is not part of New Jersey's mosquito fauna. As a result, the addition of 3 species brings the updated checklist of New Jersey mosquitoes to 62.

**KEY WORDS** New Jersey, Culicidae, mosquitoes, checklist, distribution

### INTRODUCTION

The latest checklist of New Jersey mosquitoes was published in 1983 and included a total of 59 species (McNelly and Crans 1983). Since that time, 4 additional new records have been reported, including *Aedes thibaulti* Dyar and Knab (McNelly 1984), *Aedes infirmatus* Dyar and Knab (McNelly 1989), *Aedes aegypti* (Linnaeus) (Donnelly 1992), and *Aedes albopictus* (Skuse) (Crans et al. 1996).

The *Ae. aegypti* collections reported by Donnelly (1992) were accidentally introduced to a construction site in Morris County. The species was not able to overwinter, did not become established, and should not be added to New Jersey's checklist. *Aedes albopictus*, another introduced nonindigenous species, has persisted and expanded its range beyond the Monmouth County collection site reported by Crans et al. (1996). Since 1995, breeding populations have been located in Salem, Cumberland, and Burlington counties. One adult female *Ae. albopictus* appeared in a light trap collection from Atlantic County but larval populations could not be located in the vicinity. *Aedes thibaulti*, originally collected in the extreme southern portion of New Jersey (McNelly 1984), has recently appeared in the northern portion of the state (Crans and Crans 1998) and probably exists throughout the state in relict population pockets where suitable larval habitat exists. *Aedes infirmatus* was collected during an intensive arbovirus surveillance effort in southern New Jersey in 1988 (McNelly 1989) and has not been collected since that time. The addition of *Ae. thibaulti*, *Ae. infirmatus*, and *Ae. albopictus* brings the checklist of New Jersey mosquitoes to 62.

### CHECKLIST OF NEW JERSEY MOSQUITOES

#### Genus *Aedes* Meigen

1. *Aedes abserratus* (Felt and Young)
2. *Aedes albopictus* (Skuse)

3. *Aedes atlanticus* Dyar and Knab
4. *Aedes atropalpus* (Coquillett)
5. *Aedes aurifer* (Coquillett)
6. *Aedes canadensis canadensis* (Theobald)
7. *Aedes cantator* (Coquillett)
8. *Aedes cinereus* Meigen
9. *Aedes communis* (De Geer)
10. *Aedes dorsalis* (Meigen)
11. *Aedes dupreei* (Coquillett)
12. *Aedes excrucians* (Walker)
13. *Aedes fitchii* (Felt and Young)
14. *Aedes flavescens* (Müller)
15. *Aedes grossbecki* Dyar and Knab
16. *Aedes hendersoni* Cockerell
17. *Aedes implicatus* Vockeroth
18. *Aedes infirmatus* Dyar and Knab
19. *Aedes intrudens* Dyar
20. *Aedes mitchellae* (Dyar)
21. *Aedes provocans* (Walker)
22. *Aedes punctor* (Kirby)
23. *Aedes sollicitans* (Walker)
24. *Aedes spencerii spencerii* (Theobald)
25. *Aedes sticticus* (Meigen)
26. *Aedes stimulans* (Walker)
27. *Aedes taeniorhynchus* (Wiedemann)
28. *Aedes thibaulti* Dyar and Knab
29. *Aedes triseriatus* (Say)
30. *Aedes trivittatus* (Coquillett)
31. *Aedes vexans* (Meigen)

#### Genus *Anopheles* Meigen

32. *Anopheles atropos* Dyar and Knab
33. *Anopheles barberi* Coquillett
34. *Anopheles bradleyi* King
35. *Anopheles crucians* Wiedemann
36. *Anopheles earlei* Vargas
37. *Anopheles punctipennis* (Say)
38. *Anopheles quadrimaculatus* Say
39. *Anopheles walkeri* Theobald

#### Genus *Culex* Linnaeus

40. *Culex erraticus* (Dyar and Knab)
41. *Culex pipiens* Linnaeus

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42. *Culex restuans* Theobald
43. *Culex salinarius* Coquillett
44. *Culex tarsalis* Coquillett
45. *Culex territans* Walker

#### Genus *Culiseta* Felt

46. *Culiseta inornata* (Williston)
47. *Culiseta melanura* (Coquillett)
48. *Culiseta minnesotae* Barr
49. *Culiseta morsitans* (Theobald)

#### Genus *Coquillettidia* Dyar

50. *Coquillettidia perturbans* (Walker)

#### Genus *Orthopodomyia* Theobald

51. *Orthopodomyia alba* Baker
52. *Orthopodomyia signifera* (Coquillett)

#### Genus *Psorophora* Robineau-Desvoidy

53. *Psorophora ciliata* (Fabricius)
54. *Psorophora columbiae* (Dyar and Knab)
55. *Psorophora cyanescens* (Coquillett)
56. *Psorophora discolor* (Coquillett)
57. *Psorophora ferox* (von Humboldt)

58. *Psorophora howardii* Coquillett
59. *Psorophora mathesoni* Belkin and Heinemann

#### Genus *Toxorhynchites* Theobald

60. *Toxorhynchites rutilus septentrionalis* (Dyar and Knab)

#### Genus *Uranotaenia* Lynch-Arribáizaga

61. *Uranotaenia sapphirina* (Osten Sacken)

#### Genus *Wyeomyia* Theobald

62. *Wyeomyia smithii* (Coquillett)

#### REFERENCES CITED

- Crans, W. J. and S. C. Crans. 1998. *Aedes thibaulti* in northern New Jersey. *J. Am. Mosq. Control Assoc.* 14: 348-350.
- Crans, W. J., M. S. Chomsky, D. Guthrie and A. Aquiviva. 1996. First record of *Aedes albopictus* from New Jersey. *J. Am. Mosq. Control Assoc.* 12:307-309.
- Donnelly, J. W. 1992. 1991 field collections of *Aedes aegypti* in Morris County. *Proc. N. J. Mosq. Control Assoc.* 79:92-95.
- McNelly, J. R. 1984. *Aedes thibaulti* in New Jersey. *Mosq. News* 44:247-248.
- McNelly, J. R. 1989. Occurrence of *Aedes infirmatus* in New Jersey. *J. Am. Mosq. Control Assoc.* 5:227.
- McNelly, J. and W. J. Crans. 1983. *Psorophora howardii*, an addition to the checklist of New Jersey mosquitoes. *Mosq. News* 43:237-239.