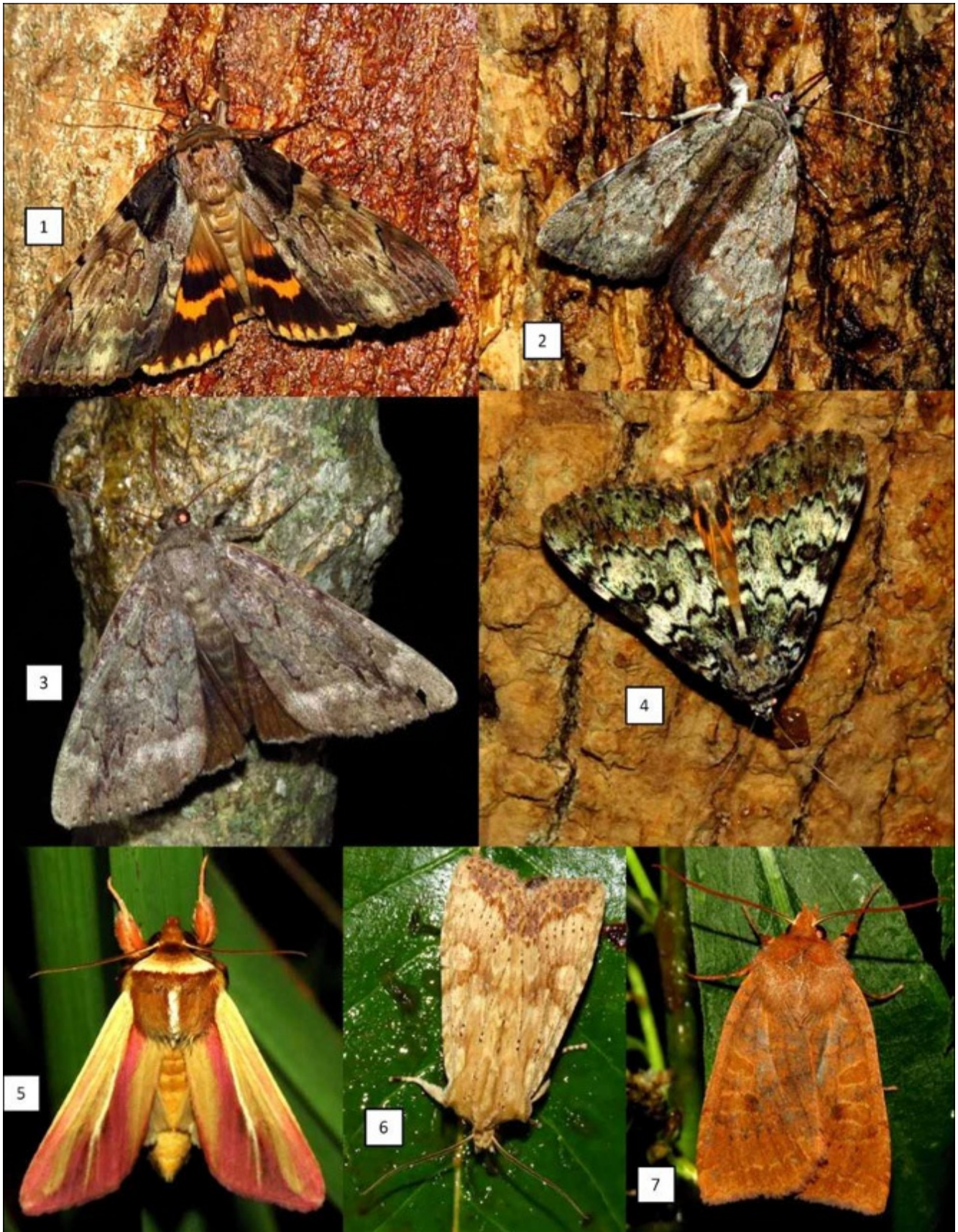


**FIGURE 98: Recent Colonizations by Southern Species Expanding their Ranges North (Live Photos).**

1. *Catocala nebulosa* (8796): WI Outagamie County: Mosquito Hill: bait trail on hillside, 24 July 2020.
  2. *Catocala insolabilis* (8791): WI Outagamie County: Mosquito Hill: bait trail on hillside, 24 July 2020.
  3. *Catocala residua* (8785): WI Outagamie County: Mosquito Hill: bait trail on hillside, 2 September 2020.
  4. *Catocala connubialis* (8877): WI Outagamie County: Mosquito Hill: bait trail on hillside, 25 July 2020.
  5. *Dardiga rubripennis* (10434): WI Outagamie County: Mosquito Hill: prairie planting, 25 July 2020.
  6. *Lithophane franclemonti* (9887.1): WI Outagamie County: Mosquito Hill: bait trail on hillside, 5 October 2020.
  7. *Epiglaea decliva* (9946): WI Outagamie County: Old Stone Bridge Trail: bait trail, 14 October 2020.
-





**FIGURE 99: Newly Recorded Species for Outagamie County and Adjacent Areas (Geometridae).**

1. *Alsophila pometaria* (6258): WI Outagamie County: Mosquito Hill: hillside mesic hardwood forest, 4 November 2020.
  2. *Alsophila pometaria* (6258): WI Outagamie County: Appleton: UV lights, 1 November 2020.
  3. *Speranza brunneata* (6286): WI Shawano County: Navarino Wildlife Area: sandy oak-pine barrens, MV trap, 22 June 2022. See also Figure 94(1).
  4. *Isturgia dislocaria* (6419): WI Shawano County: Navarino Wildlife Area: sandy mesic to xeric oak-pine-hardwood forest, UV trap 11, 29 May 2022.
  5. *Isturgia dislocaria* (6419): WI Outagamie County: Mosquito Hill: hill top mesic hardwood forest/grassland, MV trap 4, 3 June 2020.
  6. *Isturgia dislocaria* (6419): WI Outagamie County: Mosquito Hill: hill top mesic hardwood forest/grassland, MV trap 4, 21 May 2020.
  7. *Macaria transitaria* (6335): WI Outagamie County: Appleton: MV trap, 20 August 2019.
  8. *Macaria transitaria* (6335): WI Shawano County: Navarino Wildlife Area: sandy oak-pine barrens, MV sheet, 23 June 2023.
  9. *Cingilia catenaria* (6898): WI Outagamie County: Fallen Timbers: hydric hardwood forest edge/field with prairie planting, MV trap 1, 17 September 2018.
  10. *Cabera quadrifasciaria* (6680): WI Outagamie County: Mosquito Hill: upland prairie planting/mesic hardwood forest edge, UV trap 6, 3 June 2020.
  11. *Cabera quadrifasciaria* (6680): WI Outagamie County: Mosquito Hill: upland prairie planting/mesic hardwood forest edge, UV trap 6, 3 June 2020.
  12. *Hethemia pistaciaria* (7084): WI Outagamie County: Appleton: MV trap, 5 June 2020.
  13. *Orthonama evansi* (7415): WI Shawano County: Navarino Wildlife Area: sedge meadow with bog elements, UV trap 18, 23 June 2023.
  14. *Orthonama evansi* (7415): WI Winnebago County: Wiouwash Trail just south of Outagamie County border, sedge meadow/shrubby wetland, UV trap, 2 August 2021.
  15. *Orthonama evansi* (7415): WI Shawano County: Navarino Wildlife Area: sedge meadow with bog elements, UV trap 18, 23 June 2023.
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**FIGURE 100: Newly Recorded Species for Outagamie County and Adjacent Areas (Geometridae, Limacodidae, & Rhopalocera).**

1. *Speranza abruptata* (6294) ♂: WI Shawano County: Navarino Wildlife Area: sandy oak-pine barrens, MV sheet, 23 June 2023.
  2. *Speranza abruptata* (6294) ♂: WI Shawano County: Navarino Wildlife Area: sandy oak-pine barrens, MV sheet, 23 June 2023.
  3. *Speranza abruptata* (6294) ♀: WI Shawano County: Navarino Wildlife Area: hardwood swamp by mesic hardwood/pine/hemlock forest, UV trap 13, 23 June 2023.
  4. *Speranza abruptata* (6294) ♀: WI Shawano County: Navarino Wildlife Area: sandy oak-pine barrens, MV trap 15, 10 July 2022.
  5. *Eufidonia discospilata* (6639): WI Shawano County: Navarino Wildlife Area: open bog with tamarack, birch, abundant leatherleaf and cotton grass, diurnal, 27 May 2022.
  6. *Metarranthis amyrisaria* (6824): WI Shawano County: Navarino Wildlife Area: sandy oak-pine barrens, MV sheet, 31 May 2023.
  7. *Selenia alciphearia* (6817): WI Shawano County: Navarino Wildlife Area: sedge meadow with bog elements/oak-pine forest edge, UV trap 18, 26 July 2023.
  8. *Selenia alciphearia* (6817): WI Shawano County: Navarino Wildlife Area: sedge meadow with bog elements/oak-pine forest edge, UV trap 18, 26 July 2023.
  9. *Selenia alciphearia* (6817): WI Shawano County: Navarino Wildlife Area: oak-pine uplands south of low sedge meadow with bog elements, MV sheet 6, 2 August 2022.
  10. *Selenia kentaria* (6818): WI Shawano County: Navarino Wildlife Area: mesic oak-pine-hardwood forest, UV trap 9, 14 May 2022.
  11. *Mesothea incertata* (7085): WI Shawano County: Navarino Wildlife Area: sandy oak-pine barrens, MV trap 10, 29 May 2022.
  12. *Hesperia leonardus* (4023): WI Shawano County: Navarino Wildlife Area: sandy oak-pine barrens, nectaring on *Liatris*, 8 September 2022.
  13. *Packardia elegans* (4661): WI Shawano County: Navarino Wildlife Area: hardwood swamp by mesic hardwood/pine/hemlock forest, UV trap 13, 22 June 2022.
  14. *Packardia elegans* (4661): WI Shawano County: Navarino Wildlife Area: hardwood swamp by mesic hardwood/pine/hemlock forest, UV trap 13, 22 June 2022.
  15. *Euphydryas phaeton* (4516): WI Shawano County: Navarino Wildlife Area: sedge meadow along east side of Pike's Peak Flowage, 9 July 2023.
-





**FIGURE 101: Newly Recorded Species for Outagamie County and Adjacent Areas (Geometridae, Epiplemlidae, Thyatiridae, & Lycaenidae).**

1. *Eupithecia mutata* (7575): WI Outagamie County: Appleton: MV trap, 21 June 2020.
  2. *Eupithecia mutata* (7575): WI Shawano County: Navarino Wildlife Area: sandy oak-pine barrens, MV sheet, 23 June 2023.
  3. *Eupithecia assimolata* (7528): WI Shawano County: Navarino Wildlife Area: mesic hardwood/pine/hemlock forest, UV trap 12, 29 May 2022.
  4. *Eupithecia cimicifugata* (7524): WI Outagamie County: Mosquito Hill: hillside mesic hardwood forest/grassland, netted flying at night, 3 June 2020.
  5. *Eupithecia cimicifugata* (7524): WI Outagamie County: Mosquito Hill: hillside mesic hardwood forest/grassland, netted flying at night, 3 June 2020.
  6. *Acasis viridata* (7635): WI Outagamie County: Fallen Timbers: hydric hardwood forest, bait trail, 2 May 2020.
  7. *Callizia amorata* (7650): WI Shawano County: Navarino Wildlife Area: sandy mesic to xeric oak-pine-hardwood forest, UV trap 16, 22 June 2022.
  8. *Callizia amorata* (7650): WI Shawano County: Navarino Wildlife Area: sandy mesic to xeric oak-pine-hardwood forest, UV trap 16, 22 June 2022.
  9. *Stamnodes gibbicostata* (7333): WI Outagamie County: Fox River Walk: mesic hardwood forest along Fox River, UV trap, 11 September 2021.
  10. *Euthyatira pudens* (6240): WI Outagamie County: Fallen Timbers: hydric hardwood forest, bait trail, 2 May 2020.
  11. *Euthyatira pudens* (6240): WI Shawano County: Navarino Wildlife Area: mesic oak-pine-hardwood forest, UV trap 9, 15 May 2022.
  12. *Euthyatira pudens* (6240): WI Outagamie County: Old Stone Bridge Trail: bait trail, 30 April 2020.
  13. *Euthyatira pudens* (6240): WI Outagamie County: Fallen Timbers: white cedar/hardwood swamp, bait trail, 1 May 2020.
  14. *Euthyatira pudens* (6240): WI Shawano County: Navarino Wildlife Area: hardwood swamp by mesic hardwood/pine/hemlock forest, UV trap 13, 13 April 2023.
  15. *Euthyatira pudens* (6240): WI Outagamie County: Fallen Timbers: white cedar/hardwood swamp, MV trap 18, 1 May 2021.
  16. *Xanthorhoe species 1* (7390.1): WI Outagamie County: sedge meadow north of Allcan Road, UV trap, 10 July 2020.
  17. *Callophrys augustinus* (4322): WI Shawano Co: Navarino Wildlife Area: intermediate succession scrubby oak-pine woodland with barrens openings on north side of bog, 21 May 2023.
  18. *Callophrys augustinus* (4322): Same individual as Number 16 (underside).
  19. *Eupithecia assimolata* (7528): WI Outagamie County: Fallen Timbers: white cedar/hardwood swamp, UV trap 18, 27 July 2021.
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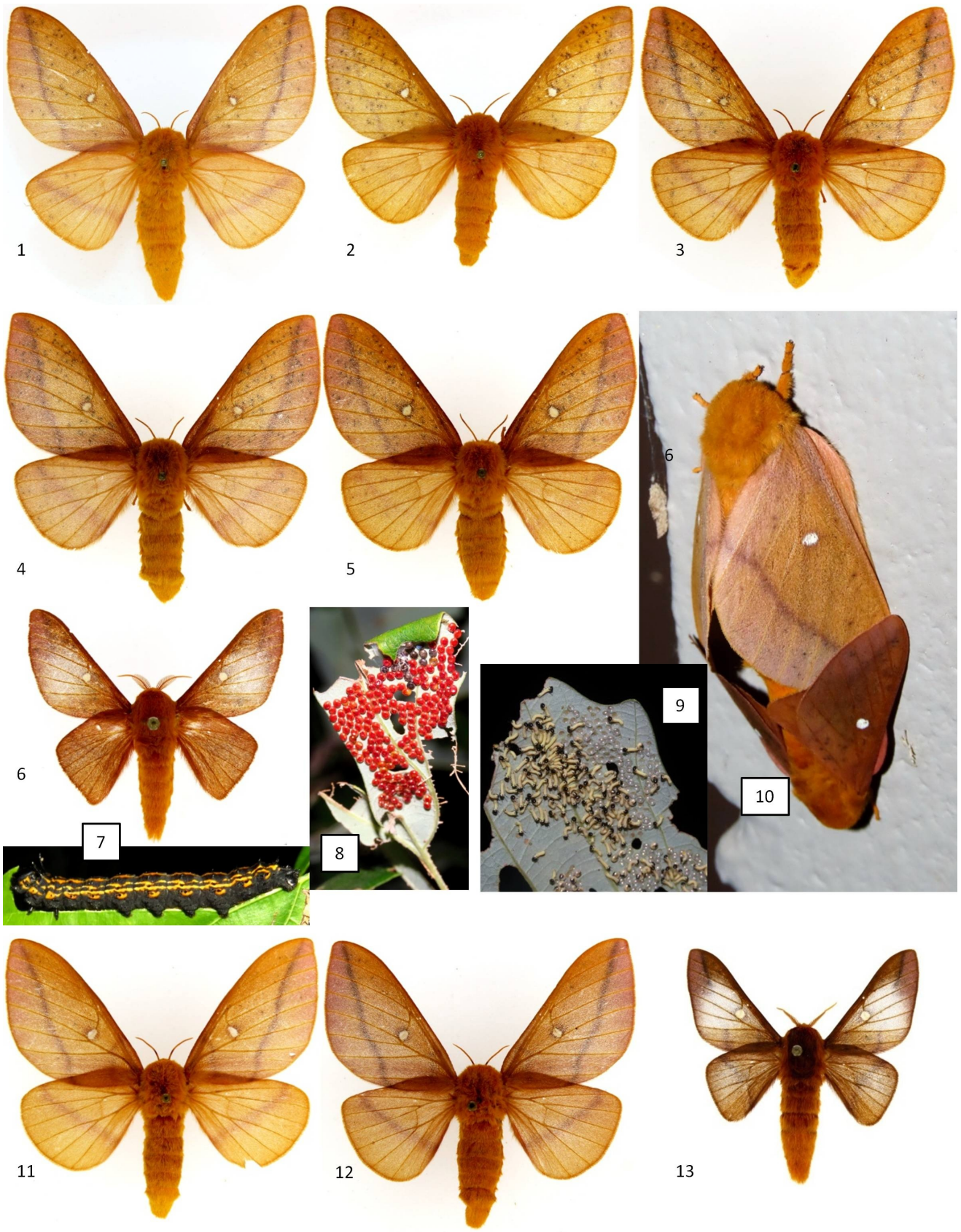


**FIGURE 102: Newly Recorded Species for Outagamie County (Saturniidae).**

1. *Anisota senatoria* (7719) ♀: WI Outagamie County: Mosquito Hill: on lighted shed, 10 July 2020.
2. *Anisota senatoria* (7719) ♀: WI Outagamie County: Mosquito Hill: upland prairie planting/mesic hardwood forest edge, UV trap 6, 1 July 2020.
3. *Anisota senatoria* (7719) ♀: WI Outagamie County: Mosquito Hill: upland prairie planting/mesic hardwood forest edge, MV trap 6, 5 July 2022.
4. *Anisota senatoria* (7719) ♀: WI Outagamie County: Mosquito Hill: upland prairie planting/mesic hardwood forest edge, MV trap 6, 5 July 2022.
5. *Anisota senatoria* (7719) ♀: WI Outagamie County: Mosquito Hill: upland prairie planting/mesic hardwood forest edge, MV trap 6, 5 July 2022.
6. *Anisota senatoria* (7719) ♂: Same individual in Number 10.
7. *Anisota senatoria* (7719) late instar larva: WI Outagamie County: Mosquito Hill: hilltop, feeding on black oak leaf, 3 September 2020.
8. *Anisota senatoria* (7719) egg mass: WI Outagamie County: Mosquito Hill: prairie planting, on bur oak leaf, 26 July 2022.
9. *Anisota senatoria* (7719) first instar larvae: WI Outagamie County: Mosquito Hill: prairie planting, on bur oak leaf, 26 July 2022.
10. *Anisota senatoria* (7719) mating pair; top: ♀; bottom: ♂: WI Outagamie County: Mosquito Hill: on building under light, 18 July 2023.

The following phenotypes have been attributed to *Anisota virginiensis*. However, I think it is possible that these might actually be variants of *Anisota senatoria*, and that *Anisota virginiensis* might not really occur in Wisconsin.

11. *Anisota virginiensis?* (7723) ♀: WI Outagamie County: Mosquito Hill: prairie planting between hill and floodplain, MV sheet 23, 22 July 2022.
  12. *Anisota virginiensis?* (7723) ♀: WI Outagamie County: Mosquito Hill: prairie planting between hill and floodplain, MV sheet 23, 22 July 2022.
  13. *Anisota virginiensis?* (7723) ♂: WI Outagamie County: Mosquito Hill: hill top oak opening in mesic hardwood forest, 5 July 2022.
-





**FIGURE 103: Newly Recorded Species for Outagamie County and Adjacent Areas (Mimallonidae, Notodontidae, & Noctuidae: Lymantriinae & Arctiinae).**

1. *Cicinnus melsheimeri* (7662): WI Shawano County: Navarino Wildlife Area: oak-pine upland clearing near hardwood forest/wetlands, UV sheet 17, 22 June 2022.
  2. *Heterocampa pulverea* (7990.1): WI Shawano County: Navarino Wildlife Area: sandy oak-pine barrens, MV trap 15, 10 July 2022.
  3. *Heterocampa pulverea* (7990.1): WI Shawano County: Navarino Wildlife Area: sandy oak-pine barrens, MV sheet 8, 23 June 2023.
  4. *Schizura concinna* complex phenotype 2 (8010): WI Shawano County: Navarino Wildlife Area: sandy oak-pine barrens, MV trap 15, 5 August 2022.
  5. *Schizura concinna* complex phenotype 2 (8010): WI Shawano County: Navarino Wildlife Area: sandy oak-pine barrens, UV trap 10, 26 July 2023.
  6. *Schizura concinna* complex phenotype 2 (8010): WI Shawano County: Navarino Wildlife Area: oak-pine uplands south of low sedge meadow with bog elements, MV sheet 6, 26 July 2023.
  7. *Notodonta scitipennis* (7926): WI Outagamie County: Fallen Timbers: white cedar/hardwood swamp, MV trap 18, 8 June 2021.
  8. *Notodonta scitipennis* (7926): WI Shawano County: Navarino Wildlife Area: oak-pine uplands south of low sedge meadow with bog elements, MV sheet 6, 26 July 2023.
  9. *Notodonta scitipennis* (7926): WI Outagamie County: Fallen Timbers: white cedar/hardwood swamp, MV trap 18, 8 June 2021.
  10. *Notodonta scitipennis* (7926): WI Shawano County: Navarino Wildlife Area: oak-pine uplands south of low sedge meadow with bog elements, MV sheet 6, 26 July 2023.
  11. *Notodonta scitipennis* (7926): WI Shawano County: Navarino Wildlife Area: sandy oak-pine barrens, MV sheet 8, 31 May 2023.
  12. *Notodonta scitipennis* (7926): WI Outagamie County: Fallen Timbers: white cedar/hardwood swamp, MV trap 18, 8 June 2021.
  13. *Phragmatobia assimilans* (8158): WI Shawano Co: Navarino Wildlife Area: oak-pine-hardwood forest/shrubby area, MV trap 5, 15 May 2022.
  14. *Dasychira pinicola* (8305): WI Shawano County: Navarino Wildlife Area: sandy oak-pine barrens, MV sheet, 28 August 2022.
  15. *Dasychira basiflava* or species near (8296): WI Shawano County: Navarino Wildlife Area: high sedge meadow/hardwood swamp, UV trap 20, 5 August 2022.
-





**FIGURE 104: Newly Recorded Species and/or Recent Colonizations for Outagamie County and Adjacent Areas, and Southern Species of Uncertain Status Recorded from Southern Wisconsin (Noctuidae: Arctiinae).**

1. *Virbia opella* (8118): WI Outagamie County: Appleton: MV trap, 15 July 2017.
  2. *Virbia opella* (8118): WI Shawano County: Navarino Wildlife Area: sandy mesic to xeric oak-pine-hardwood forest, UV trap 16, 22 June 2022.
  3. *Virbia opella* (8118): WI Shawano County: Navarino Wildlife Area: hardwood swamp by mesic hardwood/pine/hemlock forest, UV trap 13, 23 June 2023.
  4. *Crambidia casta complex* (8051): WI Shawano County: Navarino Wildlife Area: sandy oak-pine barrens with abundant lichens on the ground, MV trap, 5 August 2022.
  5. *Virbia nigricans* (8119): WI Outagamie County: Mosquito Hill: upland prairie planting/ mesic hardwood forest edge, MV trap 6, 3 July 2021.
  6. *Virbia immaculata* (8124): WI Dane County: Swamplovers Preserve: upland mesic hardwood forest/upland prairie restoration overlooking wet-mesic prairie planting/wetlands, MV trap, 24 August 2021.
  7. *Apantesis phalerata* (8169): WI Outagamie County: Mosquito Hill: wet-mesic prairie planting/floodplain forest edge, UV trap 20, 23 August 2022.
  8. *Apantesis phalerata* (8169): WI Outagamie County: North Bluemound Drive Power Line Cut: field/prairie planting, UV trap, 27 May 2020.
  9. *Apantesis phalerata* (8169): WI Outagamie County: Appleton: MV trap, 4 August 2018.
  10. *Apantesis phalerata* (8169): WI Outagamie County: Fox Cities Paper Trail by Fox Valley Technical College: field with prairie planting, UV trap, 21 August 2022.
  11. *Apantesis phalerata* (8169): WI Outagamie County: Mosquito Hill: wet-mesic prairie planting/floodplain forest edge, UV trap 20, 23 August 2022.
  12. *Apantesis vittata* (8170): WI Dane County: Swamplovers Preserve: upland mesic hardwood forest/upland prairie restoration overlooking wet-mesic prairie planting/wetlands, MV trap, 18 August 2021.
  13. *Grammia oithona* (8195): WI Outagamie County: Mosquito Hill: upland prairie planting/ mesic hardwood forest edge, UV trap 6, 4 June 2021.
- The following species is not newly recorded but is shown for comparison; it was regularly recorded in the 1990s as well as during recent surveys.**
14. *Apantesis nais* (8171): WI Outagamie County: Mosquito Hill: hill top, mesic hardwood forest/grassland, UV trap 4, 17 May 2021.
  15. *Apantesis nais* (8171): WI Shawano County: Navarino Wildlife Area: sandy oak-pine barrens, MV sheet, 31 May 2023.
-





**FIGURE 105: Newly Recorded Species for Outagamie County and Adjacent Areas (Noctuidae).**

1. *Grammia margo* (8172.1) ♂: WI Shawano County: Navarino Wildlife Area: sandy oak-pine barrens, MV trap 10, 29 May 2022.
  2. *Grammia margo* (8172.1) ♀: WI Shawano County: Navarino Wildlife Area: sandy oak-pine barrens, MV sheet 8, 23 May 2023.
  3. *Grammia margo* (8172.1) ♂: WI Shawano County: Navarino Wildlife Area: sandy oak-pine barrens, MV sheet 8, 23 May 2023.
  4. *Cycnia collaris* (8229): WI Outagamie County: Mosquito Hill: upland prairie planting/ mesic hardwood forest edge, UV trap 6, 24 July 2020.
  5. *Cycnia collaris* (8229): WI Outagamie County: Mosquito Hill: prairie planting between hill and floodplain, MV sheet 23, 22 July 2022.
  6. *Cycnia collaris* (8229): WI Outagamie County: Mosquito Hill: upland prairie planting/ mesic hardwood forest edge, UV trap 6, 24 July 2020.
  7. *Plusiodonta compressipalpis* (8534): WI Outagamie County: Mosquito Hill: mesic hardwood forest on hill, bait trail, 18 July 2021.
  8. *Plusiodonta compressipalpis* (8534): WI Outagamie County: Mosquito Hill: mesic hardwood forest on hill, bait trail, 2 September 2020.
  9. *Epantheria scribbonia* (8146): WI Shawano County: Navarino Wildlife Area: oak-pine upland clearing near hardwood forest/wetlands, UV sheet 17, 22 June 2022.
  10. *Zale aeruginosa* species 1 (8694): WI Outagamie County: Mosquito Hill: hilltop mesic hardwood forest, bait trail, 20 May 2022.
  11. *Catocala connubialis* (8877): WI Outagamie County: Mosquito Hill: bait trail on hilltop, 24 July 2020.
  12. *Lophocampa maculata* (8214): WI Shawano County: Navarino Wildlife Area: netted in oak-pine uplands near sedge meadow with bog elements, 23 June 2022.
  13. *Catocala amestris* (8844): WI Outagamie County: Appleton: bait trap, 19 July 2019.
  14. *Catocala amestris* (8844): WI Outagamie County: Appleton: bait trap, 19 July 2019.
  15. *Catocala amestris* (8844): WI Outagamie County: Appleton: bait trap, 10 July 2018.
-





**FIGURE 106: *Catocala* species (Noctuidae), Including Newly Recorded Species and Recent Colonizations for Outagamie County.**

1. *Catocala umbrosa* (8801.1): WI Shawano Co: Navarino Wildlife Area: sandy oak-pine uplands with mixed grassland, shrubs, and woodland, bait trail, 5 August 2022.

2. *Catocala umbrosa* (8801.1): WI Shawano Co: Navarino Wildlife Area: sandy oak-pine uplands with mixed grassland, shrubs, and woodland, bait trail, 2 August 2022.

3. *Catocala umbrosa* (8801.1): WI Outagamie County: Mosquito Hill: hilltop mesic hardwood forest/grassland, bait trail, 24 July 2020.

**Note:** *Catocala ilia* was common and widespread in Outagamie County with both recent and historical surveys. It is shown for comparison with *Catocala umbrosa*.

4. *Catocala ilia* (8801): WI Outagamie County: Mosquito Hill: hilltop mesic hardwood forest/grassland, 10 July 2020.

5. *Catocala ilia* (8801): WI Outagamie County: Appleton: bait trail, 10 July 2018.

6. *Catocala ilia* (8801): WI Outagamie County: Mosquito Hill: hilltop mesic hardwood forest/grassland, 10 July 2020.

7. *Catocala residua* (8785): WI Outagamie County: Mosquito Hill: hilltop mesic hardwood forest/grassland, 24 July 2020.

8. *Catocala residua* (8785): WI Outagamie County: Mosquito Hill: hilltop mesic hardwood forest/grassland, 24 July 2020.

9. *Catocala palaeogama* (8795) form "**phalanga**": WI Outagamie County: Mosquito Hill: hilltop mesic hardwood forest/grassland, 24 July 2020.

**Note:** This species was regularly recorded at Mosquito Hill with both recent and historical surveys, but this is the only record of this form for Outagamie County to date.

10. *Catocala insolabilis* (8791): WI Outagamie County: Appleton: bait trail, 21 July 2022.

11. *Catocala insolabilis* (8791): WI Outagamie County: Appleton: bait trail, 21 July 2020.

12. *Catocala insolabilis* (8791): WI Outagamie County: Appleton: bait trail, 21 July 2020.

13. *Catocala insolabilis* (8791): WI Outagamie County: Mosquito Hill: hilltop mesic hardwood forest/grassland, 24 July 2020.

14. *Catocala insolabilis* (8791): WI Outagamie County: Mosquito Hill: hilltop mesic hardwood forest/grassland, 24 July 2020.

15. *Catocala insolabilis* (8791): WI Outagamie County: Appleton: nectaring on Common Milkweed, 27 July 2020.





**FIGURE 107: *Catocala nebulosa*, a Recent Colonization Now Found Regularly at Three Sites in Outagamie County (Noctuidae: Erebinae).**

1. *Catocala nebulosa* (8796): WI Outagamie County: Appleton: bait trail, 19 August 2019.
2. *Catocala nebulosa* (8796): WI Outagamie County: Appleton: bait trail, 9 August 2019.
3. *Catocala nebulosa* (8796): WI Outagamie County: Mosquito Hill: hilltop mesic hardwood forest/grassland, bait trail, 24 July 2020.
4. *Catocala nebulosa* (8796): WI Outagamie County: Mosquito Hill: hilltop mesic hardwood forest/grassland, bait trail, 24 July 2020.
5. *Catocala nebulosa* (8796): WI Outagamie County: Mosquito Hill: hilltop mesic hardwood forest/grassland, bait trail, 24 July 2020.
6. *Catocala nebulosa* (8796): WI Outagamie County: Mosquito Hill: hillside mesic hardwood forest, bait trail, 25 July 2020.
7. *Catocala nebulosa* (8796): WI Outagamie County: Fallen Timbers: hydric hardwood forest, bait trail, 31 July 2020.
8. *Catocala nebulosa* (8796): WI Outagamie County: Fallen Timbers: hydric hardwood forest, bait trail, 31 July 2020.
9. *Catocala nebulosa* (8796): WI Outagamie County: Fallen Timbers: hydric hardwood forest, on forest floor, 31 July 2020.

**Note:** All these specimens were photographed with a flash except for Number 6.

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**FIGURE 108: Newly Recorded Species for Outagamie County and Adjacent Areas (Noctuidae).**

1. *Nycteola cinereana* (8977): WI Outagamie County: Fallen Timbers: white cedar/hardwood swamp, UV Trap 18, 16 July 2020.
2. *Nycteola cinereana* (8977): WI Outagamie County: Fallen Timbers: white cedar/hardwood swamp, bait trail, 8 November 2020.
3. *Nycteola cinereana* (8977): WI Shawano County: Navarino Wildlife Area: oak-pine uplands south of low sedge meadow with bog elements, MV sheet 6, 26 July 2023.
4. *Psychomorpha epimenis* (9309): WI Shawano County: Navarino Wildlife Area: raised grassy trail through sedge meadow and cattail marsh, diurnal, netted in flight, 23 May 2022.
5. *Psychomorpha epimenis* (9309): WI Outagamie County: Fallen Timbers: hydric hardwood forest, diurnal, flying around mud puddle, 15 May 2020.
6. *Nycteola* species: WI Outagamie County: Mosquito Hill: hillside mesic hardwood forest, bait trail, 9 November 2020.
7. *Heliothis ascecius* (11072): WI Outagamie County: Mosquito Hill: prairie planting between hill and floodplain, MV sheet 23, 22 July 2022.
8. *Psaphida grandis* (10013): WI Outagamie County: Mosquito Hill: hillside mesic hardwood forest/grassland/shrubby areas, MV trap 13, 22 March 2021.
9. *Psaphida grandis* (10013): WI Outagamie County: Mosquito Hill: hillside mesic hardwood forest/grassland/shrubby areas, MV trap 13, 22 March 2021.
10. *Acronicta afflicta* (9254): WI Shawano County: Navarino Wildlife Area: sandy oak-pine barrens, MV trap 10, 29 May 2022.
11. *Acronicta afflicta* (9254): WI Outagamie County: Appleton: MV trap, 17 August 2018.
12. *Acronicta afflicta* (9254): WI Outagamie County: Mosquito Hill: hilltop mesic hardwood forest/grassland by sandstone cliffs, MV trap 4, 1 July 2020.
13. *Acronicta betulae* (9208): WI Outagamie County: Appleton: MV trap, 4 June 2020.
- \*14. *Acronicta hamamelis* (9248): WI Shawano County: Navarino Wildlife Area: oak-pine forest edge/sedge meadow with bog elements, UV trap 18, 23 June 2023.
15. *Acronicta tritona* (9211): WI Shawano County: Navarino Wildlife Area: sandy oak-pine barrens, MV trap 15, 5 August 2022.

\*=This record was added from recent field work and is not included in the species account.

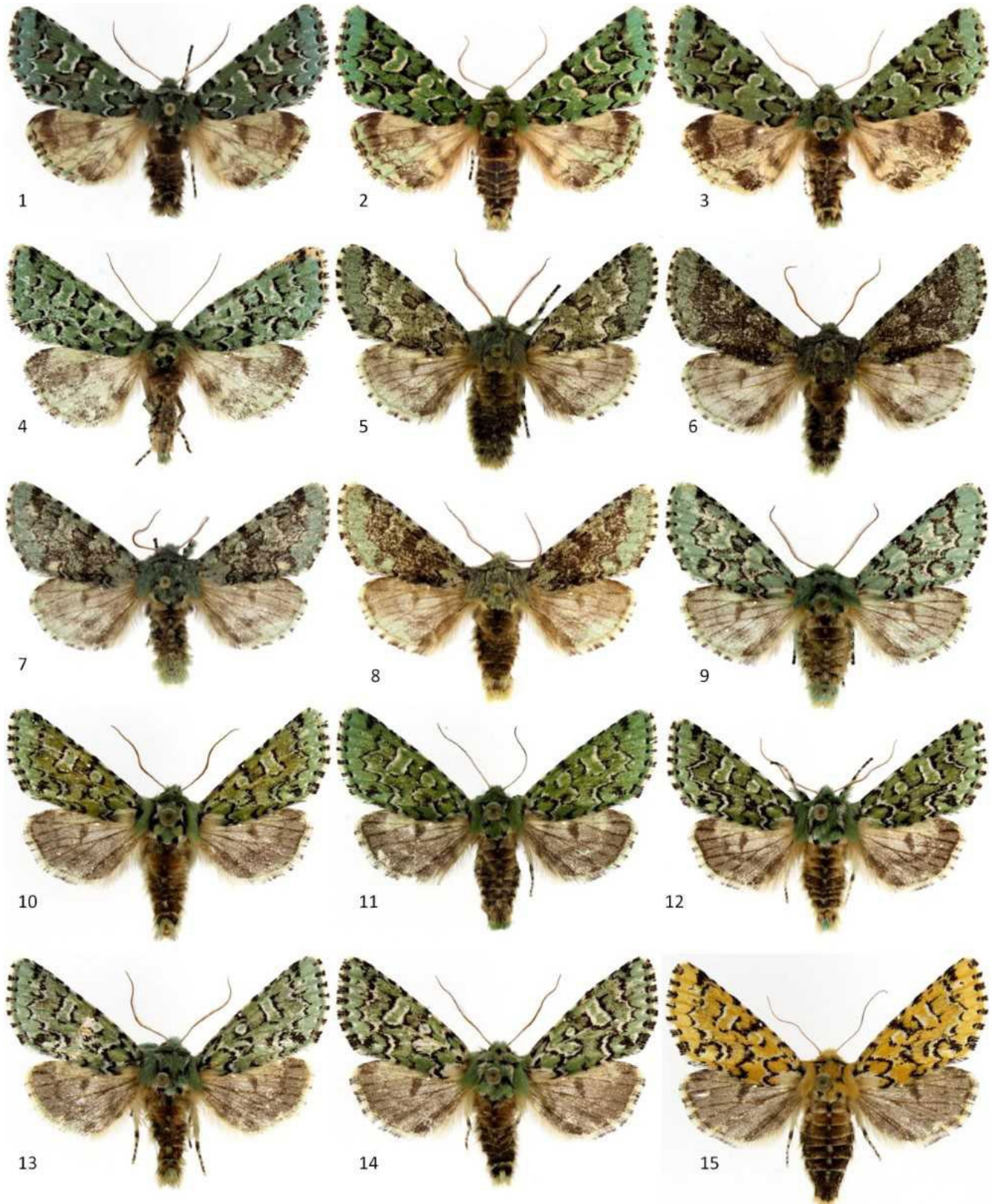
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**FIGURE 109: Newly Recorded Species for Outagamie County and Adjacent Areas (Noctuidae: Psaphidinae).**

1. *Feralia comstocki* (10008): WI Outagamie County: Fallen Timbers: white cedar/hardwood swamp, MV trap 17, 1 May 2020.
  2. *Feralia comstocki* (10008): WI Shawano County: Navarino Wildlife Area: hardwood swamp by mesic hardwood/pine/hemlock forest, UV trap 13, 11 May 2023.
  3. *Feralia comstocki* (10008): WI Shawano County: Navarino Wildlife Area: hardwood swamp by mesic hardwood/pine/hemlock forest, UV trap 13, 11 May 2023.
  4. *Feralia comstocki* (10008): WI Outagamie County: Mosquito Hill: hilltop mesic hardwood forest/grassland by sandstone cliffs, MV trap 4, 22 May 2020.
  5. *Feralia major* (10007): WI Outagamie County: Mosquito Hill: hillside mesic hardwood forest/grassland/shrubby areas, MV trap 13, 4 April 2021.
  6. *Feralia major* (10007): WI Outagamie County: Mosquito Hill: hillside mesic hardwood forest/grassland/shrubby areas, MV trap 13, 4 April 2021.
  7. *Feralia major* (10007): WI Outagamie County: Fallen Timbers: hydric hardwood forest, MV trap 13, 8 April 2020.
  8. *Feralia major* (10007): WI Shawano County: Navarino Wildlife Area: oak-pine uplands south of low sedge meadow with bog elements, UV trap 7, 23 April 2022.
  9. *Feralia major* (10007): WI Shawano County: Navarino Wildlife Area: sandy oak-pine barrens, MV trap 10, 11 April 2023.
  10. *Feralia jocosa* (10005): WI Outagamie County: Fallen Timbers: white cedar/hardwood swamp, MV trap 18, 14 April 2023.
  11. *Feralia jocosa* (10005): WI Shawano County: Navarino Wildlife Area: hardwood swamp by mesic hardwood/pine/hemlock forest, UV trap 13, 13 April 2023.
  12. *Feralia jocosa* (10005): WI Shawano County: Navarino Wildlife Area: hardwood swamp by mesic hardwood/pine/hemlock forest, UV trap 13, 13 April 2023.
  13. *Feralia jocosa* (10005): WI Shawano County: Navarino Wildlife Area: hardwood swamp by mesic hardwood/pine/hemlock forest, UV trap 13, 13 April 2023.
  14. *Feralia jocosa* (10005): WI Shawano County: Navarino Wildlife Area: sandy oak-pine barrens, MV sheet 8, 13 April 2023.
  15. *Feralia jocosa* (10005): WI Shawano County: Navarino Wildlife Area: hardwood swamp by mesic hardwood/pine/hemlock forest, UV trap 13, 13 April 2023.
-





**FIGURE 110: Newly Recorded Species for Outagamie County and Adjacent Areas (Noctuidae & Hepialidae).**

1. *Chrysanympa formosa* (8904): WI Shawano County: Navarino Wildlife Area: sandy mesic to xeric oak-pine-hardwood forest/grassland, netted shortly after dusk, 9 July 2023.
  2. *Chrysanympa formosa* (8904): WI Shawano County: Navarino Wildlife Area: sandy oak-pine barrens, MV trap 15, 10 July 2022.
  3. *Syngrapha viridisigma* (8904): WI Shawano County: Navarino Wildlife Area: open bog with tamarack and white pine, UV sheet 14, 5 August 2022.
  4. *Syngrapha microgramma* (8946): WI Shawano County: Navarino Wildlife Area: boardwalk through bog adjacent to hardwood swamp and sedge meadow, UV sheet 14, 23 June 2022.
  5. *Lithacodia musta* (9051): WI Outagamie County: Mosquito Hill: hilltop mesic hardwood forest/grassland by sandstone cliffs, MV trap 4, 10 July 2020.
  6. *Cerma cora* (9061): WI Shawano County: Navarino Wildlife Area: sandy mesic to semi xeric oak-pine-hardwood forest, UV trap 11, 30 May 2022.
  7. *Cerma cora* (9061): WI Shawano County: Navarino Wildlife Area: sandy oak-pine barrens, MV sheet 8, 23 May 2023.
  8. *Cerma cora* (9061): WI Shawano County: Navarino Wildlife Area: mesic to semi-xeric oak-pine-hardwood forest, UV trap 16, 23 May 2023.
  9. *Cerma cora* (9061): WI Shawano County: Navarino Wildlife Area: sandy oak-pine barrens, MV sheet 8, 23 May 2023.
  10. *Oruza albocostaliata*, or species near (9025): WI Shawano County: Navarino Wildlife Area: oak-pine uplands south of low sedge meadow with bog elements, MV sheet 6, 26 July 2023.
  11. *Sthenopsis thule* (0021): WI Shawano County: Navarino Wildlife Area: oak-pine uplands south of low sedge meadow with bog elements, MV sheet 6, 26 July 2023.
  12. *Oruza albocostaliata*, or species near (9025): WI Shawano County: Navarino Wildlife Area: oak-pine uplands south of low sedge meadow with bog elements, MV sheet 6, 26 July 2023.
  13. *Oruza albocostaliata*, or species near (9025): WI Shawano County: Navarino Wildlife Area: oak-pine uplands south of low sedge meadow with bog elements, MV sheet 6, 26 July 2023.
  14. *Fagitana littera* complex (9629): WI Shawano County: Navarino Wildlife Area: high sedge meadow/hardwood swamp with *Osmunda claytoniana*, UV trap 13, 5 August 2022.
  15. *Fagitana littera* complex (9629): WI Shawano County: Navarino Wildlife Area: sedge meadow with bog elements, UV trap 18, 26 July 2023.
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**FIGURE 111: Newly Recorded or Newly Reported Species for Outagamie County, WI (Noctuidae: Noctuinae: *Papaipema*).**

1. *Papaipema circumlucens* (9491) ♀: WI Outagamie County: Mosquito Hill: prairie planting/floodplain forest edge, MV sheet, 23 August 2022.

2. *Papaipema baptisiae* (9485) ♀: WI Outagamie County: Fallen Timbers: field/prairie planting, UV trap, 18 September 2022.

3. *Papaipema baptisiae* (9485) ♂: WI Outagamie County: Mosquito Hill: prairie planting, UV trap, 1 September 2022.

4. *Papaipema sciata* (9506) ♂: WI Outagamie County: Mosquito Hill: prairie planting/floodplain forest edge, MV trap, 1 October 2021.

5. *Papaipema sciata* (9506) ♀: WI Outagamie County: Mosquito Hill: prairie planting/floodplain forest edge, UV sheet, 1 October 2022.

6. *Papaipema harrisii* (9472) ♂: WI Outagamie County: Mosquito Hill: prairie planting/floodplain forest edge, MV trap, 2 September 2021.

7. *Papaipema aerata* (9468) ♂: WI Outagamie County: Mosquito Hill: prairie planting/floodplain forest edge, MV trap, 15 September 2021.

8. *Papaipema aerata* (9468) ♀: WI Outagamie County: Mosquito Hill: prairie planting/floodplain forest edge, MV trap, 16 September 2022.

9. *Papaipema aerata* (9468) ♀: WI Outagamie County: North Bluemound Drive Power Line Cut: field/prairie planting, UV trap, 3 October 2018.

10. *Papaipema speciosissima* or species near (9482) ♂: WI Shawano County: Navarino Wildlife Area: hardwood swamp/sedge meadow, UV trap, 20 September 2022.

11. *Papaipema speciosissima* or species near (9482) ♂: WI Outagamie County: Fallen Timbers: hydric hardwood forest with *Osmunda regalis*, UV trap, 20 September 2022.

12. *Papaipema rigida* (9503) ♂: WI Outagamie County: North Bluemound Drive Power Line Cut: field/prairie planting, UV trap, 27 August 2019.

13. *Papaipema nelita* species 1 (9502) ♂: WI Outagamie County: Mosquito Hill: prairie planting/floodplain forest edge, MV trap, 23 August 2022.

14. *Papaipema nelita* species 1 (9502) ♀: WI Outagamie County: Mosquito Hill: prairie planting/floodplain forest edge, UV trap, 23 August 2022.

15. *Papaipema rigida* (9503) ♀: WI Outagamie County: Fox Cities Paper Trail by Fox Valley Technical College: field/prairie planting, UV trap, 21 August 2022.





**FIGURE 112: Newly Recorded Species for Outagamie County and Adjacent Areas (Noctuidae: Noctuinae).**

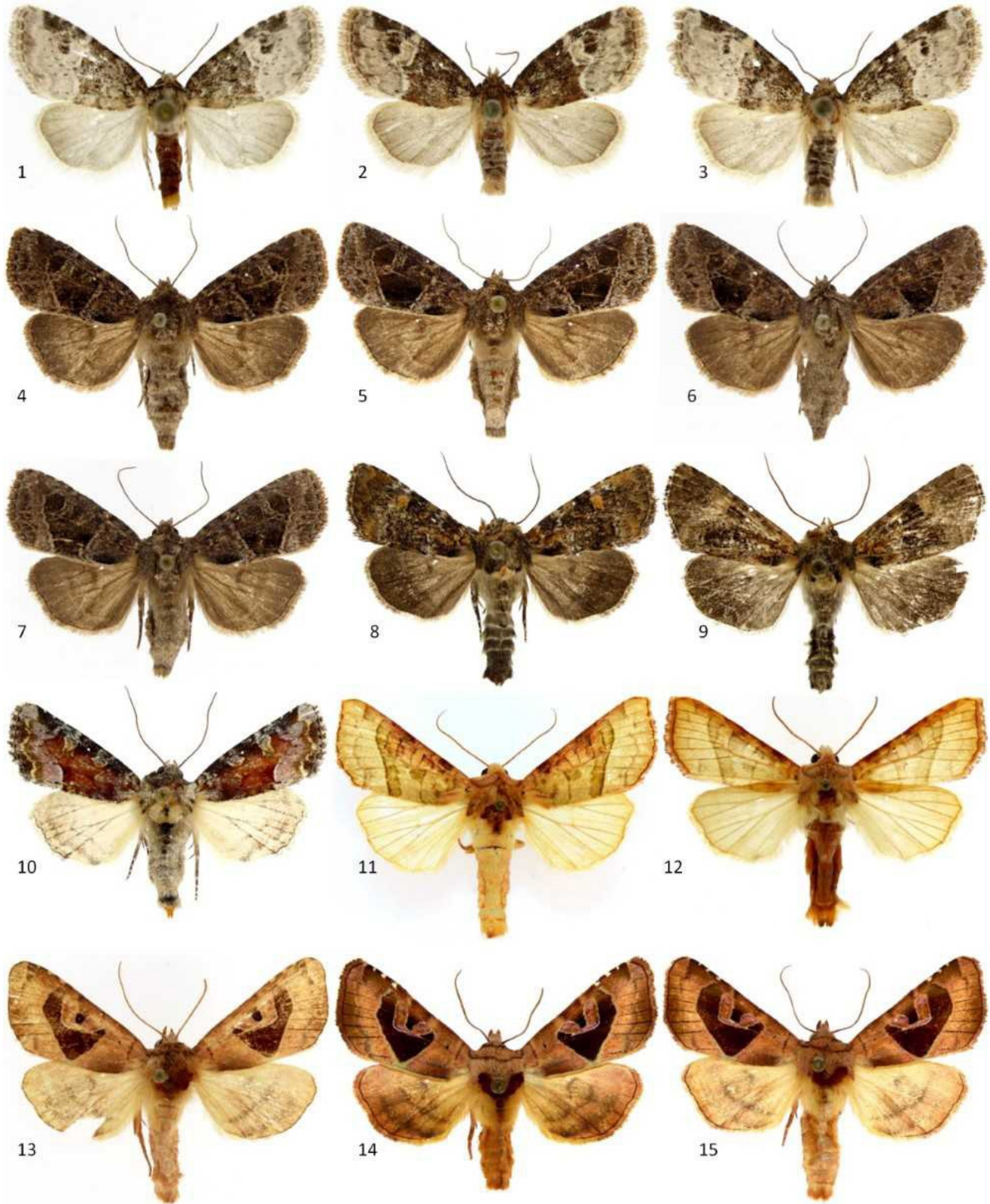
1. *Apamea vultuosa* (9341): WI Outagamie County: Mosquito Hill: hilltop mesic hardwood forest/grassland, bait trail, 4 June 2021.
  2. *Apamea vultuosa* (9341): WI Outagamie County: Fallen Timbers: hydric hardwood forest, netted, 8 June 2020.
  3. *Apamea vultuosa* (9341): WI Outagamie County: Appleton: bait trail, 25 July 2019.
  4. *Apamea vultuosa* (9341): WI Shawano County: Navarino Wildlife Area: oak-pine uplands south of low sedge meadow with bog elements, UV trap 6, 23 June 2022.
  5. *Apamea impulsa* (9360): WI Outagamie County: Appleton: bait trail, 10 July 2018.
  6. *Apamea plutonia* (9344): WI Shawano County: Navarino Wildlife Area: sandy oak-pine barrens, MV sheet 8, 23 June 2023.
  7. *Apamea indocilis* (9362): WI Outagamie County: Appleton: bait trail, 12 July 2018.
  8. *Apamea indocilis* (9362): WI Shawano County: Navarino Wildlife Area: low sedge meadow with bog elements adjacent to xeric oak-pine uplands, UV trap 3, 23 June 2022.
  9. *Apamea indocilis* (9362): WI Shawano County: Navarino Wildlife Area: sandy mesic to semi xeric oak-pine-hardwood forest/field, netted in flight, 10 July 2022.
  10. *Apamea indocilis* (9362): WI Outagamie County: Appleton: bait trail, 12 July 2018.
  11. *Conservula anodonta* (9548): WI Shawano Co: Navarino Wildlife Area: sandy oak-pine uplands with mixed grassland, shrubs, and woodland, bait trail, 10 July 2022.
  12. *Photedes includens* (9434): WI Shawano County: Navarino Wildlife Area: sedge meadow with bog elements, UV trap 18, 2 August 2022.
  13. *Photedes panatela* (9436): WI Outagamie County: Fallen Timbers: open hydric hardwood forest, MV trap 21, 18 June 2021.
  14. *Photedes near enervata* (9441.1): WI Outagamie County: Mosquito Hill: prairie planting/floodplain forest edge, MV trap 10, 4 August 2021.
  15. *Photedes near enervata* (9441.1): WI Outagamie County: Mosquito Hill: floodplain forest edge/prairie planting, UV trap 7, 24 July 2020.
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**FIGURE 113: Newly Recorded Species for Outagamie County and Adjacent Areas (Noctuidae: Noctuinae).**

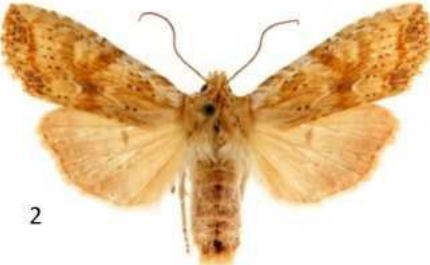
1. *Oligia crytora* (9410): WI Shawano County: Navarino Wildlife Area: hardwood swamp by mesic hardwood/pine/hemlock forest, UV trap 13, 22 June 2022.
  2. *Oligia crytora* (9410): WI Outagamie County: Fallen Timbers: white cedar/hardwood swamp, UV trap 18, 8 June 2020.
  3. *Oligia crytora* (9410): WI Outagamie County: Fallen Timbers: white cedar/hardwood swamp, UV trap 18, 8 June 2020.
  4. *Oligia obtusa* (9418): WI Outagamie County: Fallen Timbers: hydric hardwood forest edge/meadow with prairie planting, UV trap 19, 27 July 2021.
  5. *Oligia obtusa* (9418): WI Shawano County: Navarino Wildlife Area: boardwalk through bog adjacent to hardwood swamp and sedge meadow, UV sheet 14, 5 August 2022.
  6. *Oligia obtusa* (9418): WI Outagamie County: Mosquito Hill: floodplain forest edge/prairie planting, UV trap 7, 24 July 2020.
  7. *Oligia obtusa* (9418): WI Outagamie County: Mosquito Hill: floodplain forest edge/prairie planting, UV trap 7, 24 July 2020.
  8. *Oligia chlorostigma* (9402): WI Outagamie County: Mosquito Hill: upland prairie planting/mesic hardwood forest edge, MV trap 6, 5 July 2022.
  9. *Oligia chlorostigma* (9402): WI Outagamie County: Mosquito Hill: prairie planting between hill and floodplain, MV sheet 23, 22 July 2022.
  10. *Oligia brighami* (9415): WI Shawano County: Navarino Wildlife Area: oak-pine uplands south of low sedge meadow with bog elements, MV sheet 6, 2 August 2022.
  11. *Hydraecia stramentosa* (9516): WI Dane County: Swamplovers Preserve: upland mesic hardwood forest/upland prairie restoration overlooking wet-mesic prairie planting/wetlands, MV trap, 20 August 2021.
  12. *Hydraecia stramentosa* (9516): WI Outagamie County: Appleton: MV trap, 16 August 2019.
  13. *Conservula anodonta* (9548): WI Outagamie County: Mosquito Hill: upland prairie planting/mesic hardwood forest edge, UV trap 6, 10 July 2022.
  14. *Conservula anodonta* (9548): Navarino Wildlife Area: sandy oak-pine uplands with mixed grassland, shrubs, and woodland, bait trail, 10 July 2022.
  15. *Conservula anodonta* (9548): Navarino Wildlife Area: sandy oak-pine uplands with mixed grassland, shrubs, and woodland, bait trail, 10 July 2022.
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**FIGURE 114: Newly Recorded Species for Outagamie County and Adjacent Areas (Noctuidae: Noctuinae).**

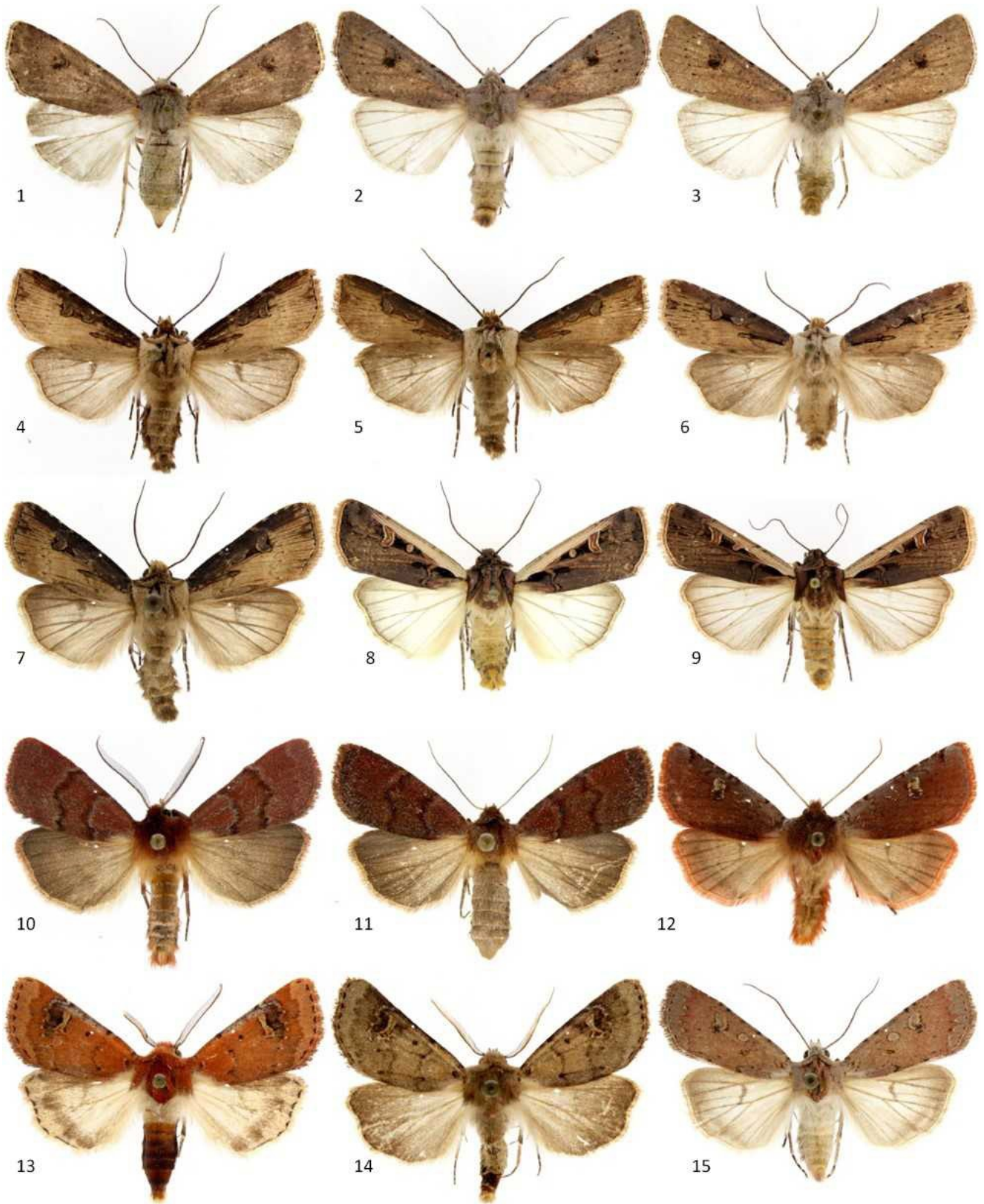
1. *Lithophane franclemonti* (9887.1): WI Outagamie County: Mosquito Hill: hilltop/hillside mesic hardwood forest/grassland, 4 November 2020.
  2. *Lithophane franclemonti* (9887.1): WI Outagamie County: Mosquito Hill: hilltop/hillside mesic hardwood forest/grassland, 9 November 2020.
  3. *Lithophane franclemonti* (9887.1): WI Outagamie County: Mosquito Hill: hilltop/hillside mesic hardwood forest/grassland, 9 November 2020.
  4. *Lithophane thaxteri* (9928): WI Shawano Co: Navarino Wildlife Area: sandy oak-pine uplands with mixed grassland, shrubs, and woodland, bait trail, 21 April 2022.
  5. *Xylena nupera* (9873): WI Outagamie County: Fallen Timbers: hydric hardwood forest, bait trail, 7 April 2020.
  6. *Epiglaea decliva* (9946): WI Outagamie County: Fallen Timbers: hydric hardwood forest opening, UV trap 5, 24 September 2018.
  7. *Hillia iris* (9967): WI Winnebago County: Wiouwash Trail just south of Outagamie County border, sedge meadow/shrubby wetland, UV trap, 18 September 2020.
  8. *Hillia iris* (9967): WI Shawano County: Navarino Wildlife Area: sandy oak-pine barrens, UV trap 21, 29 May 2022.
  9. *Sideridis congermana* (10266): WI Shawano County: Navarino Wildlife Area: hardwood swamp by mesic hardwood/pine/hemlock forest, UV trap 13, 30 May 2022.
  10. *Dardiga rubripennis* (10434): WI Outagamie County: Mosquito Hill: prairie planting/floodplain forest edge, UV sheet 10, 22 July 2022.
  11. *Dardiga rubripennis* (10434): WI Outagamie County: Appleton: bait trail, 5 August 2018.
  12. *Dardiga rubripennis* (10434): WI Shawano County: Navarino Wildlife Area: sandy oak-pine barrens, MV sheet, 28 August 2022.
  13. *Protorthodes incincta* (10552): WI Outagamie County: Mosquito Hill: wet-mesic prairie planting/floodplain forest edge, bait trail, 1 September 2022.
  14. *Protorthodes incincta* (10552): WI Outagamie County: Mosquito Hill: wet-mesic prairie planting/floodplain forest edge, bait trail, 1 September 2022.
  15. *Lacinipolia vicina* (10394): WI Shawano County: Navarino Wildlife Area: sandy oak-pine barrens, MV trap 15, 10 July 2022.
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**FIGURE 115: Newly Recorded Species for Outagamie County and Adjacent Areas (Noctuidae: Noctuinae).**

1. *Agrotis vetusta* (10641): WI Outagamie County: Mosquito Hill: hillside mesic hardwood forest/grassland, 2 September 2020.
  2. *Agrotis vetusta* (10641): WI Shawano County: Navarino Wildlife Area: sandy oak-pine barrens, MV sheet, 28 August 2022.
  3. *Agrotis vetusta* (10641): WI Shawano County: Navarino Wildlife Area: sandy oak-pine barrens, MV sheet, 28 August 2022.
  4. *Agrotis stigmosa* (10658): WI Outagamie County: Mosquito Hill: mesic hardwood pine forest at base of hill/field near obstacle course, UV trap 19, 20 May 2022.
  5. *Agrotis stigmosa* (10658): WI Outagamie County: Mosquito Hill: upland prairie planting/mesic hardwood forest edge, UV trap 6, 22 May 2021.
  6. *Agrotis stigmosa* (10658): WI Outagamie County: Mosquito Hill: upland prairie planting/mesic hardwood forest edge, UV trap 17, 17 May 2021.
  7. *Agrotis stigmosa* (10658): WI Shawano County: Navarino Wildlife Area: sandy oak-pine barrens, MV sheet, 31 May 2023.
  8. *Striacosta albicosta* (10878): WI Outagamie County: Appleton: bait trail, 6 November 2016.
  9. *Striacosta albicosta* (10878): WI Outagamie County: Appleton: MV trap, 16 August 2018.
  10. *Hemipachnobia monochromeata* (10993.1): WI Shawano County: Navarino Wildlife Area: boardwalk through bog adjacent to hardwood swamp and sedge meadow, UV sheet 14, 23 June 2022.
  11. *Hemipachnobia monochromeata* (10993.1): WI Shawano County: Navarino Wildlife Area: boardwalk through bog adjacent to hardwood swamp and sedge meadow, UV sheet 14, 23 June 2022.
  12. *Cerastis fishii* (10997): WI Shawano County: Navarino Wildlife Area: sedge meadow with bog elements/oak-pine forest edge, UV trap 18, 2 August 2022.
  13. *Eucoptcnemis fimbrialis* (10694): WI Shawano County: Navarino Wildlife Area: oak-pine forest edge by sandy oak-pine barrens, flew to oak leaf and landed, 8 September 2022.
  14. *Eucoptcnemis fimbrialis* (10694): WI Shawano County: Navarino Wildlife Area: sandy oak-pine barrens, UV trap 10, 8 September 2022.
  15. *Euxoa scandens* (10715): WI Shawano County: Navarino Wildlife Area: sandy oak-pine barrens, MV sheet, 23 June 2023.
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**FIGURE 116: Rhopalocera: 1-5: *Pompeius verna*, a southern species that has expanded its range north; 6-8: *Coenonympha inornata*, the only northern species that has expanded its range south into Outagamie County; 9-11: Two species recorded from Outagamie County by single specimens that were recently found at the Navarino Wildlife Area.**

1. *Pompeius verna* (4048) ♂: WI Outagamie County: Mosquito Hill: nectaring on *Monarda didyma* in garden by parking lot, 5 July 2021.

2. *Pompeius verna* (4048) ♀: WI Outagamie County: Mosquito Hill: nectaring on *Monarda didyma* in garden by parking lot, 5 July 2021.

3. *Pompeius verna* (4048) ♀: WI Outagamie County: Mosquito Hill: field east of prairie planting, 12 July 2021.

4. *Pompeius verna* (4048) ♀: WI Outagamie County: Mosquito Hill: nectaring on *Monarda didyma* in garden by parking lot, 5 July 2021.

5. *Pompeius verna* (4048) ♀: WI Outagamie County: Mosquito Hill: nectaring on *Monarda didyma* in field east of prairie planting, 12 July 2021.

6. *Coenonympha inornata* (4583): WI Menominee County: North side of Highway VV X Rainbow Road, xeric oak-pine forest edge/roadside grassland, 6 June 2017.

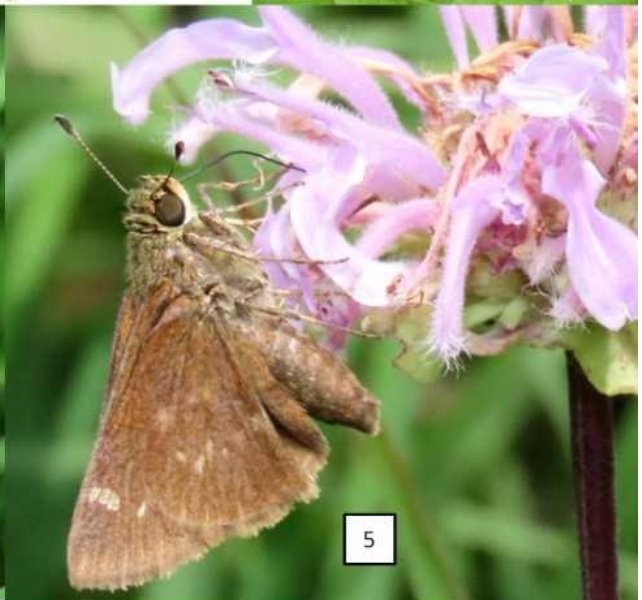
7. *Coenonympha inornata* (4583): Same individual as Number 6 (underside).

8. *Coenonympha inornata* (4583): WI Outagamie County: Fallen Timbers: meadow with prairie planting, 2 July 2021.

9. *Amblyscirtes hegon* (4096): WI Shawano Co: Navarino Wildlife Area: sandy road through xeric oak-pine forest near fields and barrens, 7 June 2022.

10. *Amblyscirtes hegon* (4096): Same individual as Number 9 (underside).

11. *Callophrys henrici* (4326): WI Shawano Co: Navarino Wildlife Area: intermediate succession scrubby oak-pine woodland with barrens openings on north side of bog, 21 May 2023.





**FIGURE 117: Newly Recorded Microlepidoptera Species for Outagamie County (Choreutidae, Tortricidae, & Pyralidae).**

#=New colonization by a species apparently moving its range north, found reliably in at least one locality where it was not found from 1989-1995.

#1. *Tebenna silphiella* (2642): WI Outagamie County: Mosquito Hill: mesic prairie planting, on leaves of *Silphium integrifolium*, nocturnal, 4 July 2021.

#2. *Eucosma giganteana* (3098): WI Outagamie County: Mosquito Hill: upland prairie planting/mesic hardwood forest edge, MV trap 6, 3 July 2021.

#3. *Eucosma bilineana* (3100): WI Outagamie County: Fox Cities Paper Trail by Fox Valley Technical College: field with prairie planting, UV trap, 3 July 2023.

**Note:** This species was first found in the area in 2022 at Mosquito Hill.

#4. *Eucosma bilineana* (3100): WI Outagamie County: Mosquito Hill: prairie planting/floodplain forest edge, UV sheet 10, 5 July 2022.

#5. *Eucosma sombreana* (3127): WI Outagamie County: Mosquito Hill: hillside near top, mesic hardwood forest/sandstone cliffs near grassland, UV trap 28, 18 July 2023.

#6. *Aethes spartinana* (3851): WI Outagamie County: Mosquito Hill: prairie planting/floodplain forest edge, MV sheet 10, 18 July 2023.

#7. *Aethes spartinana* (3851): WI Outagamie County: Mosquito Hill: prairie planting/floodplain forest edge, MV sheet 10, 18 July 2023.

8. *Parapediasia decorellus* (5450): WI Outagamie County: Mosquito Hill: upland prairie planting/mesic hardwood forest edge, MV trap 6, 5 July 2022.

9. *Parapediasia decorellus* (5450): WI Outagamie County: Mosquito Hill: mesic hardwood-pine forest at base of hill/field near obstacle course, UV trap 19, 18 July 2021.

#10. *Haimbachia squamulellus* (5482): WI Outagamie County: Appleton: UV lights, 1 July 2023.

#11. *Haimbachia squamulellus* (5482): WI Outagamie County: Mosquito Hill: prairie planting/floodplain forest edge, MV sheet 10, 18 July 2023.

#12. *Haimbachia squamulellus* (5482): WI Outagamie County: Appleton: UV lights, 24 June 2023.

13. *Eoreuma crawfordi* (5498): WI Outagamie County: Appleton: UV lights, 14 July 2023.

**Note:** The first area records are from 2023 at Mosquito Hill and Appleton.

#14. *Eoreuma densellus* (5492): WI Outagamie County: Appleton, UV trap, 12 June 2021.

#15. *Macalla zelleri* (5579): WI Outagamie County: Mosquito Hill: prairie planting/floodplain forest edge, MV sheet 10, 18 July 2023.

#16. *Tebenna silphiella* (2642): WI Outagamie County: Mosquito Hill: mesic prairie planting, on leaves of *Silphium integrifolium*, nocturnal, 4 July 2021.

17. *Apotomis apateticana* (2764)? or close: WI Outagamie County: Mosquito Hill: hilltop mesic hardwood forest/grassland by sandstone cliffs, UV trap 4, 5 July 2022.

18. *Meroptera cviatella* (5786): WI Outagamie County: Appleton: MV trap, 14 July 2019.

