|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Monarch population** | **Collector** | **Location / date of collection** | **Maternal family ID** | **Replicates:**  **Species (Genotypes)** |
| **Eastern North America** | Kelsey Fisher | Boone Co., IA; June 2017 | ENA-45 | ASYR (1) |
| ENA-47 | ASFA (1)  ASYR (2)  ASCU (1)  GOPH (4) |
| ENA-56 | ASFA (3)  ASYR (2)  ASCU (1)  GOPH (5) |
| ENA-70 | ASFA (1)  ASYR (1)  ASCU (2)  GOPH (2) |
| Leslie Decker | Cheboygan Co., MI; July 2017 | ENA-1 | ASFA (4)  ASYR (3)  ASCU (8)  GOPH (12) |
| ENA-2 | ASFA (3)  ASYR (6)  ASCU (4)  GOPH (9) |
| Jaap de Roode | St. Marks, FL | ENA-P | ASFA (1)  ASPEC (2)  ASYR (1)  AINC (2)  ASCU (1)  GOPH (5) |
| ENA-Q | ASFA (2)  ASPEC (3)  ASYR (2)  AINC (3)  ASCU (2)  GOPH (4) |
| ENA-S | ASFA (1)  ASPEC (2)  AINC (1)  ASCU (1)  GOPH (3) |
| Ayse Tenger-  Trolander | Chicago, Cook Co., IL; August 2018 | ENA-A | ASFA (1)  ASPEC (2)  ASYR (2)  AINC (4)  ASCU (2)  GOPH (2) |
| ENA-B | ASFA (1)  ASPEC (3)  ASYR (3)  AINC (5)  ASCU (2)  GOPH (3) |
| ENA-C | ASFA (2)  ASPEC (3)  ASYR (2)  AINC (3)  ASCU (2)  GOPH (3) |
| **Western North America** | Author | Davis, Yolo Co., CA; April 2017 | CA2-2017 | ASFA (2)  ASYR (3)  ASCU (6)  GOPH (7) |
| Author | Rumsey, Yolo Co., CA; April 2017 | CA4-2017 | ASFA (1) |
| Author | Davis, Yolo Co., CA; May 2017 | CA5-2017 | ASFA (2)  ASYR (4)  ASCU (8)  GOPH (8) |
| CA7-2017 | ASFA (1)  ASYR (1)  GOPH (1) |
| CA8-2017 | ASFA (1)  ASYR (2)  ASCU (3)  GOPH (3) |
| Author | Davis, Yolo Co., CA; June 2017 | CA9-2017 | ASFA (2)  ASYR (4)  ASCU (3)  GOPH (3) |
| Author | Greenhouse free-mating cage; exact pedigree unknown | CA10-2017 | ASYR (1)  ASCU (2)  GOPH (1) |
| CA11-2017 | ASFA (2)  ASYR (1)  ASCU (1)  GOPH (4) |
| CA12-2017 | ASFA (1)  ASCU (1) |
| CA13-2017 | ASFA (1)  GOPH (1) |
| Author | Davis, Yolo Co., CA; April 2018 | CA2-2018 | ASFA (2)  ASPEC (2)  ASYR (1)  AINC (1)  ASCU (1)  GOPH (2) |
| CA3-2018 | ASFA (2)  ASPEC (3)  ASYR (1)  AINC (1)  ASCU (2)  GOPH (3) |
| Sue-Ling Choquette | Davis, Yolo Co., CA; May 2018 | CA7-2018 | ASFA (1)  ASPEC (1)  ASYR (1)  AINC (2)  ASCU (1)  GOPH (2) |
| Author | Rumsey, Yolo Co., CA; June 2018 | CAX3-2018 | ASFA (2)  ASPEC (3)  ASYR (2)  AINC (3)  ASCU (2)  GOPH (3) |
| Author | Offspring of greenhouse emergences; June - August 2018; see notes for pedigree information | CA11-2018 | ASFA (1)  ASPEC (1)  ASYR (1)  ASCU (1)  GOPH (1) |
| CA13-2018 | ASFA (1)  ASPEC (1)  ASYR (1)  AINC (1)  ASCU (1)  GOPH (2) |
| CA23-2018 | ASFA (2)  ASPEC (1)  ASYR (1)  AINC (2)  ASCU (1)  GOPH (1) |
| CA605.1-2018 | ASPEC (1)  ASYR (1)  AINC (2)  ASCU (1)  GOPH (1) |
| CA1017.1B-  2018 | ASPEC (1)  ASYR (1)  AINC (1)  ASCU (1)  GOPH (1) |
| CA743.6-2018 | ASPEC (1)  ASCU (2)  GOPH (3) |
| CA946.1-2018 | ASFA (1)  GOPH (1) |
| **Hawaii** | Author | Kapalua, Maui Co., HI; June 2017 | HI5-2017 | ASFA (1)  ASCU (2)  GOPH (2) |
| HI9-2017 | ASCU (1) |
| HI10-2017 | ASFA (2)  ASYR (5)  ASCU (7)  GOPH (11) |
| HI16-2017 | GOPH (1) |
| HI19-2017 | ASFA (1)  ASYR (2)  ASCU (3)  GOPH (3) |
| HI20-2017 | ASFA (1)  ASYR (1)  ASCU (3)  GOPH (2) |
| HI22-2017 | ASFA (3)  ASYR (5)  ASCU (6)  GOPH (13) |
| Louie Yang | Honolulu, Oahu, HI; April 2018 | HI1-2018 | ASFA (3)  ASPEC (3)  ASYR (4)  AINC (7)  ASCU (2)  GOPH (6) |
| Will Haines | Kailua, Oahu, HI: July 2018 | HI2-2018 | ASFA (1)  ASPEC (2)  ASYR (1)  AINC (1)  GOPH (4) |
| Will Haines | Makakilu, Oahu, HI: July 2018 | HI5-2018 | ASPEC (1)  ASYR (1)  AINC (1)  GOPH (1) |
| HI17-2018 | ASFA (1)  ASYR (1)  ASCU (1)  GOPH (2) |
| HI19-2018 | ASFA (2)  ASPEC (2)  ASYR (1)  AINC (1)  ASCU (2)  GOPH (2) |
| HI21-2018 | ASFA (1)  ASPEC (2)  AINC (1)  GOPH (2) |
| Author | Offspring of greenhouse emergences; August 2018; see notes for pedigree information | HI944.2-2018 | ASPEC (1)  AINC (1)  GOPH (2) |
| **Australia** | Myron Zalucki | Pinjarra Hills, Queensland; August 2017 | AU1-2017 | ASFA (5)  ASYR (8)  ASCU (10)  GOPH (14) |
| Myron Zalucki | Pinjarra Hills, Queensland; August 2018 | AUA1-2018 | ASFA (1)  ASPEC (1)  ASYR (1)  AINC (2)  ASCU (1)  GOPH (3) |
| AUA2-2018 | ASFA (2)  ASPEC (2)  ASYR (2)  AINC (2)  ASCU (3)  GOPH (5) |
| AUA5-2018 | ASFA (1)  ASPEC (1)  ASYR (1)  AINC (2)  ASCU (1)  GOPH (3) |
| AUA8-2018 | ASFA (1)  ASPEC (1)  ASYR (2)  AINC (3)  ASCU (1)  GOPH (3) |
| AUA9-2018 | ASFA (2)  ASPEC (2)  ASYR (1)  AINC (2)  ASCU (2)  GOPH (2) |
| AUA10-2018 | ASFA (1)  ASPEC (1)  ASYR (1)  AINC (4)  ASCU (1)  GOPH (2) |
| AUA11-2018 | ASFA (1)  ASPEC (2)  ASYR (2)  AINC (2)  ASCU (1)  GOPH (3) |
| AUA12-2018 | ASFA (1)  ASPEC (2)  ASYR (2)  AINC (2)  ASCU (2)  GOPH (4) |
| AUA13-2018 | ASFA (2)  ASPEC (2)  ASYR (1)  AINC (3)  ASCU (1)  GOPH (3) |
| AUA14-2018 | ASFA (1)  ASPEC (2)  ASYR (1)  AINC (3)  ASCU (1)  GOPH (2) |
| **Guam** | Author | Dededo, Guam; June 2018 | GU10-2018 | ASCU (1) |
| GU13-2018 | ASFA (1)  ASPEC (1)  ASCU (1) |
| GU19-2018 | ASFA (2)  ASPEC (3)  ASYR (2)  AINC (1)  ASCU (1)  GOPH (2) |
| GU21-2018 | ASFA (1)  ASPEC (1)  ASYR (1)  ASCU (1)  GOPH (2) |
| GU25-2018 | ASFA (1)  ASPEC (1)  ASYR (1)  AINC (1)  ASCU (1)  GOPH (2) |
| GU26-2018 | ASFA (1)  ASPEC (1)  ASYR (1)  AINC (1)  ASCU (1)  GOPH (1) |
| GU30-3018 | ASYR (1)  AINC (1)  ASCU (1)  GOPH (1) |
| GU32-2018 | ASYR (1)  ASCU (1)  GOPH (2) |
| GU33-2018 | ASCU (1) |
| GU38-2018 | ASFA (1)  ASPEC (1)  ASYR (1)  AINC (1)  ASCU (1)  GOPH (3) |
| GU40-2018 | ASFA (1)  ASPEC (1)  AINC (1)  ASCU (1)  GOPH (2) |
| GU41-2018 | ASFA (1)  ASPEC (1)  ASYR (1)  AINC (2)  ASCU (1)  GOPH (2) |
| GU43-2018 | ASFA (1)  ASPEC (3)  ASYR (2)  AINC (2)  ASCU (2)  GOPH (4) |
| Author | Offspring of greenhouse emergences; July -August 2018; see notes for pedigree information | GU901.1B-  2018 | ASFA (1)  AINC (2)  ASCU (1)  GOPH (2) |
| GU1038.1-  2018 | ASYR (1)  AINC (2)  GOPH (1) |
| GU623.3-  2018 | ASFA (1)  ASCU (1) |
| GU750.1-  2018 | ASCU (1) |
| **Puerto Rico** | Elizabeth Evans | Vieques, Puerto Rico; July 2018 | PRPM2-2018 | AINC (1)  ASCU (1) |
| PRPM4-2018 | ASFA (2)  ASPEC (2)  ASYR (2)  AINC (2)  ASCU (3)  GOPH (2) |
| PRPM6-2018 | ASPEC (1)  ASCU (1)  GOPH (1) |
| Elizabeth Evans | Coco, Puerto Rico; August 2018 | PRP1-2018 | ASFA (1)  ASPEC (1)  ASYR (2)  ASCU (1)  GOPH (1) |
| Author | Cayey, Puerto Rico; August 2018 | PRP3-2018 | ASPEC (1)  ASYR (1)  GOPH (1) |
| Author / Elizabeth Evans / Riccardo Papa | Coco, Puerto Rico; August 2018 | PR103-2018 | ASFA (1)  ASPEC (1)  ASYR (1)  AINC (1)  ASCU (1)  GOPH (2) |
| PR105-2018 | ASFA (1)  ASPEC (1)  ASYR (2)  AINC (2)  ASCU (1)  GOPH (3) |
| PR106-2018 | ASFA (2)  ASPEC (2)  ASYR (1)  AINC (2)  ASCU (2)  GOPH (3) |
| PR107-2018 | ASFA (2)  ASPEC (2)  ASYR (1)  AINC (3)  ASCU (2)  GOPH (1) |
| PR109-2018 | ASFA (1)  ASPEC (1)  ASYR (1)  ASCU (1)  GOPH (4) |
| Author / Elizabeth Evans | Santurce, Puerto Rico; August 2018 | PR111-2018 | ASFA (3)  ASPEC (2)  ASYR (2)  AINC (4)  ASCU (2)  GOPH (5) |
| PR112-2018 | ASFA (2)  ASPEC (2)  ASYR (1)  AINC (3)  ASCU (2)  GOPH (2) |
| PR113-2018 | ASFA (1)  ASPEC (1)  ASYR (1)  AINC (2)  ASCU (1)  GOPH (3) |
| PR115-2018 | ASPEC (1)  AINC (1)  ASCU (1)  GOPH (1) |