Describe briefly what you plan to do during the next reporting period to accomplish the goals and objectives.

During the next reporting period we will finish writing and analysis of current projects and work to get them in the publication pipeline.

Currently, there are four papers in review that will be published in the next 12 months:

1. Wang Y, Kapun M, Waidele L, Kuenzel S, **Bergland AO**, Staubach F. Continent-wide structure of bacterial microbiomes of European Drosophila melanogaster suggests host-control. In review at The ISME Journal. bioRxiv: 527531
2. Machado\* H, **Bergland AO\*,** Taylor R, Tilk S, Behrman E, Dyer K, *et* al. 2018. Broad geographic sampling reveals predictable and pervasive seasonal adaptation in Drosophila. In revision at eLife. bioRxiv: 337543.
3. Kapun M, Aduriz MGB, Staubach F, Vieira J, Obbard D, Goubert C, *et* **Bergland AO** *et al*. 2018. Genomic analysis of European Drosophila populations reveals longitudinal structure and continent-wide selection. In revision at eLife. bioRxiv, 313759
4. FuZ, MeierAR, EpsteinB, **BerglandAO**, CarrilloCC, CooperRW, CrowderDW, HortonDR, JensenAS, KelleyJL, RashedA, ReitzSR, RondonSI, ThinakaranJ, WenningerEJ, WohlebCH, Snyder WE. *Wolbachia* drives the genetic integration of vector populations. In review at Molecular Ecology**.**

As it currently stands, there are 7 ongoing papers which will be far along in the publication process in the next year:

1. Weller CA & **Bergland AO**. Accurate, ultra-low coverage genome reconstruction and association studies in Hybrid Swarm mapping populations. To be submitted to Genetics
2. Kapun M, *et al. et* (>20 consortium authros), Petrov D, Schmidt, PS, Gonzalez, J, Flatt T, **Bergland AO**. Genome-wide estimates of allele frequencies from over 250 population samples across two continents. To be submitted to Scientific Data
3. Yu Y & **Bergland AO.** A meta-analysis suggests distinct genetic architectures underlying clinal and seasonal adaptation in *D. melanogaster*. To be submitted to Molecular Ecology
4. Becker D, Edwards A, Porter R, **Bergland AO**. *DAPTCHA –* semi-automated imagae analysis of predation response for daphnids. To be submitted to Methods in Ecology and Evolution
5. Stone H, Erickson P, **Bergland AO**. Environment, but not thermosensation, influences cold hardening in *Drosophila melanogaster.* To be submitted to Ecology and Evolution
6. Waldvogel A-M, Feldmeyer B, Exposito-Alonso M, Bataillon T, **Bergland AO**, Flatt T, Guillaume F, Kofler R, Mock T, Rellstab C, Rolshausen G, Savolainen O, Schmid K, Schmitt I, Pfenninger M. Evolutionary genomics improves predictions of species responses to climate change. To be submitted to Evolution Letters.
7. Erickson PA, Weller CA, **Bergland AO**. The genetic basis of natural variation in diapause in *Drosophila melanogaster*. To be submitted to PloS Genetics**.**

There are also 3 other projects will also receive extra attention this next year as we work to finalize these analyses and craft the story in preparation for manuscript submission within the next 18 months. These projects are as follows:

1. Black A, Bergland AO. Fine-scaled population structure in Drosophila melanogaster.
2. Becker D, Edwards A, Barnard-Kubow K, Porter R, Beckerman A, **Bergland AO.** Local adaptation and the maintenance of vairation in predator resp in Daphnia pulex.
3. Barnard-Kubow K, Becker D, Porter R, Beckerman A, **Bergland AO.** The evolutionary history of sexual polymorphism in Daphnia pulex.