**2023 PRUNUS CGC MEETING - MINUTES**

**April 26, 2023**

**Virtual**

* **1:00 pm** – **Call to Order** --Ksenija Gasic
  + **Roll Call** (via chat): *Ksenija Gasic, Ben Gutierrez, Juan Carlos Melgar, Gary Kinard, Peter Bretting, Tori Meakem, Gan-Yan Zhong, Per McCord, Clare Coyne, Gayle Volk, Claire Heinitz, Bill Howell, Jim McFerson, Cameron Peace, Chunxian Chen, Libby Cieniewicz, Greg Reighard.*
  + *Joseph Foster excused.*
* **Minutes from 2018 meeting** – *accepted without edits.*

**Reports (2 hours total)**

* **Office of National Programs Report** – Peter Bretting
  + *P. Bretting provided refresher report to the new members of the Prunus CGC on the NPGS system. Full report (ppt presentation) will be shared with the attendees after the meeting. The 22 gene banks in the US NPGS system cover most of the U.S. growing regions. At the end of 2022, the NPG system had just about over 605,000 accessions of more than 16,000 different species and 200 major crops. The growth in the overall collection has been slow in the last five years or so because we're past the major accumulation phase, and acquisitions are more targeted for various gaps beneath a taxonomic, ecogeographical, or genetic gaps, or lack of traits that the producers and consumers need. Distribution of germplasm had a temporary decrease during the pandemic but has since bounced back to right around the overall long-term average of between 225,000-250,000 samples that are distributed each year. Largest single category of recipients are faculty and students of the LGU in the US, followed by other public sector US institutions. Almost 40% of the distributed germplasm went internationally, and most of the international distributions were to the public sector entities.* ***Key challenges:*** *Even though the budget for the NPGS has grown incrementally over the last few years, the purchasing power of current $51 million budget is lower. Last fiscal year a modest but very welcome increase in funding happened but was not spread uniformly across the NPGS. But rather, targeted to specific crops, such as pecan, coffee, and pulse. In addition, personnel turnover, and challenges in hiring and training of qualified work force. Major focus is on filling gaps and collections across all crops especially with crop wild relatives.*
  + *Ben Gutierrez asked PB to report on the plan directed by Congress in last Farm Bill. Congress acknowledged that there are challenges and ask for a plan that proposes what needs to be done if the resources are available, and to list the resources that would be needed to deal with these challenges. The plan is comprehensive and proposes pretty extensive efforts to reduce backlogs, and genetic resource management challenges and generating more information. It is in review stage so details could not be shared.*
  + *Jim McFerson expressed his strong gratitude to Peter and the team at ARS, all of the curators, all of the staff that work together to develop this massive strategic plan in response to Congress's request. JM is a chair to the NGRAC (National Genetic Resources Advisory Council) and wanted to emphasize that the CGCs input was valuable in developing the strategic plan.*
* **National Germplasm Resources Laboratory Report** – Gary Kinard
  + *G. Kinard provided short recap of the report that was shared with the CGC members prior to the meeting and will be shared again with the minutes. Recent updates of GRIN – everything functioning normally, GRIN-U updates will be provided by Gayle Volk later. Excellent resource that might be used to supplement general education requirement classes.*
  + *Karen Williams – coordinator of the USDA plant exploration program retired but is helping part time until her position is filled. A new botanist Dr. Anne Francis, hired ~19 month ago, overlapped with Karen and will be fulfilling most of Karen’s responsibilities.*
  + *Changes in the GRIN-Global - The grand taxonomy menu item is now harmonized with the rest of the site. So you can search within results. And there's a tabular display where you can change the sorting and those kinds of features. Now there's availability of a seasonal concept within requesting accessions, meaning the curators can choose to implement a seasonal availability for material. For example, if it's out of season, you would see a different icon and a different message on the public website. The ability to request multiple form types of an accession. So for example, if a pollen is curated for a tree, as well as the more standard, dormant wood, or cutting wood, you may be able to request pollen, if it's available without sort of initiating a special request communication with the curator. There's a new feature under the grant taxonomy menu item called taxonomy regulations - information from APHIS for federal regulations and the plant board for state regulations will be provided here. The kinds of phytosanitary regulations that govern the movement between the states and territories within the US, as well as movement into the US. So if you're thinking about importing something from outside the US or moving it between states, you can kind of get a quick overview of their regulations. It is not telling you how to get permits and things like that but provides sort of an overview of what regulations might be important to consider for the movement of material. Function implemented to reduce number of material requests that are not legitimate, summary of request (150 characters), also affiliation and professional email should be provided to avoid being automatically rejected.*
* **NCGR-Davis Report** – Claire Heinitz
  + *C. Heinitz new Research Leader at NCGR Davis, CA provided expanded and open review of status and maintenance issues with details provided in report that will be shared with the minutes. Davis collection houses 14 crops, 5 Prunus (11 acres). Complexity of the position providing leadership for Parlier and Davis. Historically at Davis there has been one research scientist, one support scientist (Malli Aradhya), a couple of Masters-level horticulturists acting as crop managers, and a series of biological science technicians with various levels of education also acting as crop managers. Too complex for a single person to call themselves curator.*
  + *Personnel changes: Malli Aradhya - geneticist and Carolyn DeBuse - horticulturist retired in 2022. Those 2 positions are vacant and will be filled.*
  + *Working on hiring two positions, one PhD and one MS to fill the Prunus (PhD) and walnut and pistachio (MS) curator/crop, respectively. One position is in place funded by the SCRI project (led by Gasic).*
  + *Some limitations to what can be done due to available funding, mostly maintenance.*
  + *New lease for Wolfskill for next 10 years. Water access is the issue.*
  + *No season availability for Prunus collection in GRIN-Global for ordering.*
  + *Almond collection is not cohesive in the field. Site location not ideal for new almond collection. Need to consider using different rootstocks for multiple copies to make sure that incompatibility issue does not jeopardize the collection.*
  + *Plum collection needs re-propagating, but first needs clean up.*
  + *Similar for cherry, collection need re-propagation.*
  + *Peach collection is 10 years old, doing well. New accessions from China are being incorporated. ‘Guardian’ seeds (20 yo) received from foundation due to the license /patent expiring. No room to grow them but seed is available.*
  + *International distribution has stopped due to phytosanitary certificate requirements.*
* **NCGR-Geneva Report** – Ben Gutierrez (15 min)
  + *Introduced the research team and internship network. In 2019, building fire devastated the lab space but collections were not affected. Currently are rebuilding and using Cornell lab space in the meantime. No major pathogen issue with the cherry collection. Small collection growth from 130 to 149 for Prunus collection. There is an ample space for growth of the collection. Potential to make this space cold hardy collection location. With the current growth plan next 10-15 years there is enough land to accommodate it. New deer fence improved nursery success. Offering tours and planning tart cherry day in July. Longtime GRIN database manager retired. Steep decline of the distribution, covid and pathogen issues related. Collection impact statement, example from Apple CGC. Proposition to do the same for Prunus collection, Ben and Claire to prepare. Link is provided in the report to see example for apple.*
  + *Characterization of collection. Data collected: bloom, budbreak, cold hardiness (3-year project), fruit chemistries, and some descriptors in additions to the images. Future plans: measuring melatonin and aromas. Conduct taste testing event during field days.*
  + *Detailed report provided with the minutes.*
* **Cryopreservation of *Prunus*** **–** Gayle Volk (15 min)
  + *Provided update on the training materials developed in anticipation of the staff change (retirement and new hires) available at GRIN-U website. Prunus shoot tip cryopreservation process featured in the e-book. Success stories are welcomed, template provided with the minutes. Videos and infographics are also available.*
  + *Dormant budwood cryopreservation protocol for Prunus developed. Quite successful of material from Geneva but not as much for Davis material. Possible reason dormancy stage. Pollen cryopreservation is currently the way for Prunus from Davis that works. The idea is to ship the Prunus accessions from Davis to Geneva to create cold hardiness experiment and use that wood to try shoot tip cryopreservation. Ben has already received Prunus dormant budwood from Davis and in few years the trees will be of the adequate size to sample for cryopreservation. Working on standardizing the report to allow curators to see the progress of the cryopreservation of their collections. Report provided with the minutes.*
  + *Above provides a research opportunity in cold hardiness – evaluate across Prunus; expect differences within each crop and across crops - C. Peace.*
  + *Part of this research on cold hardiness is funded through the evaluation grants to the Prunus CGC.*
  + *Question if anyone in US is doing cold therapy for virus removal? Not right now but there is interest in looking into this.*
* **APHIS report** – *K. Gasic quick overview of the report from Joseph Foster*. *Report is included with the minutes.*
* **Evaluation Funding Report** **–** Ksenija Gasic
  + *Two germplasm proposals submitted to the CGC last funding year. The proposal “Addressing Vulnerabilities in NPGS Prunus Germplasm: Cryopreservation, Cold-Hardy Evaluations, and Genetic Characterization of Cherries and Plums” by Ben Gutierrez and collaborators was selected, submitted to the USDA, and approved for funding. Report provided with the minutes.*
  + *Several unsuccessful exploration proposals submitted. D. Chavez proposed Prunus collection in Australia.*
* **State Reports –** *J. Melgar / G. Reighard – SC experienced climate related issues, not enough chilling and late spring freeze damaged peach crop; 50% or more of crop damaged. C. Chen – GA, similar to SC, not enough chill, even issues with leafing, late spring frost damaged 70% or more peach crop.*
* **Committee members and Leadership** – *Ksenija Gasic is serving as a Chair and in 2018 C. Chen was elected as Secretary. There was no activity since so we need to establish leadership of the committee. To allow for continuation KG agrees to serve 2-year term starting now, 2023-2025 (as per by laws), and proposes for C. Chen to move up to Vice-Chair position. Motion for C. Chen to serve as Vice-Chair was unanimously accepted.* ***Action item:*** *KG to send an email call for nominations for Prunus CGC Secretary.*
  + *Per by-laws, members are elected for a 3-year term. As we did not follow this rule all of those on call today are re-elected for a 3-year term.*
  + *Link for accessing CGC documents and rosters in provided* [*here*](https://www.ars-grin.gov/CGC) *to check your information and update it. Please find Prunus CGC and check the roster information. No need to provide details; just email is enough.*
* **Prunus Vulnerability Statement** – Ksenija Gasic
  + *Vulnerability Statement needs update. Will do it offline and share the comments with K. Gasic to compile it. Target for completion is fall 2023. Ben and Claire suggestion to work on description of collections is highly appreciated. We will work on the peer review publication for Prunus collection, similar to the apple one written by Gayle et al.*

**Additional Items**

* **Discussion of time and location of next meeting**
  + *KG proposed to have virtual meetings organized at semi-annually or as needed and have virtual meeting alternating with in person meeting. Also, in person meeting should alternate between Davis and Geneva locations and potentially include other important locations for the Prunus CGC, e.g., Fort Collins, CO; Prosser, WA, etc.*

Meeting adjourned at 4pm EST. Minutes prepared by K. Gasic

Recording of the meeting is available upon request.