Supplemental Text 2

Notes on data included in Supplemental Table 2

- Data comprising Supplemental Table 2 were derived from the following sources: a) flotation data provided by Desert Archaeology, Inc., from 1998 excavations at Las Capas analyzed by Diehl, b) Sinensky (2013), and c) Diehl (2015).
- Only carbonized reproductive plant parts identified in flotation samples are included.
- All wood charcoal data was removed.
- Specimen part types included in Supplement 2 include seeds, caryopses, achenes, bracts, maize kernels and cob parts, dehiscent and indehiscent fruits.
- All data from non-feature or noncultural contexts were removed
- Data with missing volume, feature type, feature number or stratum designation information was deleted (n=98)
- All data with a feature class of "other" were removed (n=3)
- Stratum 502 and 507 samples were not part of this analysis and do not appear in Supplement 2.

Notes on changes made to integrate datasets

- All data provided by Desert Archaeology, Inc. from the 1998 excavations were given unique identifiers by adding 100,000 to previously assigned sample numbers (FN).
- Data from Sinensky 2013 were given unique identifiers by adding 1,000,000 to previously assigned sample numbers (FN).

Description of changes made to genus, family, species and taxon designations to integrate data

Changes were made to taxon designations in order to integrate data from different projects, and account for different degrees of specificity in specimen identification. These changes are listed and described below.

- If some taxa were identified to genus and other taxa from the same genus were identified to species, all taxa were changed to the genus level designation in order to facilitate the inclusion of all data in this analysis, and not include multiple specimens which could be the same species of distinct taxa in the analysis. This is particularly important for diversity measures including richness, diversity, and evenness.
- In some instances specimens identified to the genus level were grouped into a generic category used by paleoethnobotanists, for example *Amaranthus* spp. and *Chenopodium* spp. were all grouped together as "Cheno-ams."
- In very few cases, taxa identified to only the family level were removed since numerous specimens from several genera in such families were identified, and very few specimens with the family designations were present.
- In other instances, multiple genera in a single family were reclassified at the family level to facilitate the inclusion of the maximum number of specimens, but not consider specimens that could be the same genus or species as distinct.
- Finally, in the case of Poaceae, this family contains several taxa that are easily identifiable to the genus level, but many taxa that are not. In this case, genera commonly identified by paleoethnobotanists in the Sonoran Desert retained their genus classification, but all other genera were grouped together at the family level. R. J. Sinensky believes that this is appropriate because there should not be much overlap between easily identifiable grasses, such as *Panicum* sp.,

Sporobolus sp., and *Achnatherum hymenoides* compared to specimens typically only identified to the family level.

All changes made to taxonomic designations are described below.

- All *Zea mays* now Zea_mays
- Compositae changed to Asteraceae
- *Ambrosia* sp., *Helianthus* sp., *Iva* sp. and Asteraceae reclassified as Asteraceae because R. J. Sinensky did not want to delete the more abundant family level *Asteraceae* identifications (IDs) to preserve these very rare genera.
- All taxa originally identified as Cactaceae were deleted, since this only occurred in two samples and R. J. Sinensky wanted to preserve important cacti IDs to the genus level.
- *Cucurbita* sp. changed to Cucurbitaceae to facilitate including all of *Cucurbita* sp. and Cucurbitaceae IDs, since they are both rare.
- All Cruciferae family ID's changed to Brassicaceae since this is the current name for the family.
- All Brassicaceae deleted (n=2) because R. J. Sinensky wanted to preserve the IDs to genus in this family which are numerous and important.
- All *Euphorbia* sp. changed to *Euphorbaceae* to facilitate inclusion of all IDs in analysis since they are few in number.
- All *Echinocereus* sp. and *Mammillaria* sp. specimens all placed in a generic "Echinocereus/Mamilaria" category because some specimens were identified to a generic "Echinocereus/Mammillaria" category, while others were identified to genus. Sinensky (2013) identified these to genus while Diehl (2015) did not.
- All *Rumex* sp., *Polygonum* sp., *Eriogonum* sp. and *Polygonaceae* changed to *Polygonaceae* in order to include all of these IDs.
- Populus/Salix ID removed, as it is assumed to be vegetative, likely wood charcoal (n=1).
- *Lycium* sp., Solanum/Physalis and *Solanaceae* all placed in *Solanaceae* in order to include all of these rare IDs, (n=7).
- *Graminae* changed to *Poaceae* since this is the current family name.
- Grasses: *Achnatherum* sp., *Sporobolus* sp., *Panicum* sp. and *Hordeum* sp. all maintained their identification at the genus level but all remaining grasses, including *Eragrostis* sp., Agrosits/Muhlenbergia type, *Boutelua* sp., and *Poaceae*, *Cenchrus* sp., were grouped at the family level (Poaceae) because Diehl (2015) identified these taxa to genus, but Sinensky (2013) did not.
- *Scirpus* sp., *Cyperus* sp. and *Cyperaceae* all classified as *Cyperaceae* designation to include all taxa.
- All *Prosopis* sp. and *Acacia* sp. placed in a generic "Prosopis/Acacia" category
- All *Amaranthus* sp. and *Chenopodium* sp. placed in a generic "Cheno-ams" category as Diehl (2005) and Sinensky (2013) grouped them together, but Diehl (2015) identified some specimens to genus.
- *Labiate* changed to *Lamiaceae* since this is the current family name.
- *Platypuntia* sp. and *Opuntia* sp. placed in *Opuntia* genus.
- *Garraceae* changed to *Garrya* sp. since there is only one genus in Southern Arizona (per Kerany and Peebles 1960)
- All *Cleome* sp. and *Polanisia* sp. grouped into a generic "Cleome/Polanisia" since Sinensky (2013) and Diehl (2005) grouped them together but Diehl (2015) identified some specimens to genus.

Taxa Included in Plant Resource Group Categories

Cacti

- *Carnegiea* sp.
- *Cereus* sp.
- *Dasylirion* sp. (although this genus is not technically a cactus, its growth pattern and habitat is similar, and was likely exploited in the bajada alongside primarily cacti. Such IDs are also very rare.)
- *Echinocereus* sp./*Mammilarria* sp.
- *Ferocactus* sp.
- *Opuntia* sp.

Domesticates

- *Zea mays*

Wild Floodplain Grasses

- Poaceae
- *Panicum* sp.
- *Hordeum* sp.
- *Sporobolus* sp.

Dispersed Weeds

- *Astragalus* sp.
- *Boerhaavia* sp.
- Cleome/Polanisia
- *Cucurbitaceae* sp.
- *Cyperaceae* sp.
- *Eschscholtzia* sp.
- Euphorbaceae
- *Kallstroemia* sp.
- Lamiaceae
- *Lepidium* sp.
- *Mollugo* sp.
- *Oxalis* sp.
- Papaveraceae
- Polygonaceae
- *Portulaca* sp.
- Solanaceae
- *Spharalceae* sp.
- *Suaeda* sp.
- *Trianthema* sp.

Note: All specimens identified to species within the listed genera or families were also included in the above resource groups.