

Table 1: Macrofossils identified, including their family, common name, type and phytogeographic affinity.

<i>Taxa</i>	<b>Family</b>	<b>Common name</b>	<b>Type</b>	<b>Phytogeographic affinity</b>
<i>Malvaceae</i>	Malvaceae	–	–	–
<i>Chenopodiaceae</i>	Chenopodiaceae	–	–	–
<i>Baccharis aff. tola</i>	Asteraceae	Tola	Shrub	Puna
<i>Haploppapus</i> sp.	Asteraceae	–	–	Desert
<i>Cryptantha</i> sp.	Boraginaceae	Itallapa	Annual	Prepuna
<i>Brassicaceae aff. Atacama nivea</i>	Brassicaceae	–	–	Desert
<i>Ephedra americana</i>	Ephedraceae	Pingo-pingo	Shrub	Puna and Prepuna
<i>Adesmia</i> sp.	Fabaceae	Arvejilla	Annual and perennial herbs	Puna and Prepuna
<i>Phacelia cumingii</i>	Hydrophyllaceae	–	Annual herbs	Puna and Prepuna
<i>Phacelia pinnatifida</i>	Hydrophyllaceae	Sobaco negro	Annual and perennial herbs	Prepuna
<i>Cristaria</i> sp.	Malvaceae	Malvilla	Annual	Puna and Prepuna
<i>Pappostipa frigida</i>	Poaceae	Paja brava	Perennial Grass	Steppa
<i>Gilia</i> sp.	Polemoniaceae	–	Annual	Puna and Prepuna
<i>Cistanthe</i> sp.	Portulacaceae	–	Perennial Grass	Prepuna
<i>Fabiana</i> sp.	Solanaceae	–	Perennial Grass	Puna
<i>Junellia bryoides</i>	Verbeceae	Rosa de la cordillera	Shrub	Puna

Table 2: Site identifying code, radiocarbon dates, calendar year BP (95.4 % probability ranges; curve Smeal20, Oxcal 4.4) and former agent for 28 rodent middens analyzed (see Fig. 1 for midden localities).SD: standard deviation. \*: Unidentified

ID	<sup>14</sup> C age	SD	Lower cal yr BP	Upper cal yr BP	SD	Median	Lat.	Long.	Midden agent
QIN208A	1310	15	1270	1115	35	1230	25.597	69.238	<i>Abrocoma</i>
QIN208B	180	15	280	modern	90	150	25.597	69.238	<i>Abrocoma</i>
QIN211	8210	25	9270	9010	75	9105	25.597	69.238	<i>Abrocoma</i>
QIN213	12855	35	15505	15145	90	15300	25.599	69.243	*
QIN214A	14150	45	17350	17040	85	17185	25.599	69.243	<i>Abrocoma</i>
QIN214B	10175	25	11875	11635	70	11780	25.599	69.243	<i>Abrocoma</i>
QIN214C	12920	35	15575	15245	85	15400	25.599	69.243	<i>Abrocoma</i>
QIN215A	5700	20	6540	6315	45	6440	25.597	69.243	<i>Abrocoma</i>
QIN215B	1740	15	1700	1535	45	1600	25.597	69.243	<i>Abrocoma</i>
QIN215C	3515	15	3835	3645	50	3755	25.597	69.243	<i>Abrocoma</i>
QIN216	7895	20	8775	8545	65	8635	25.597	69.23	<i>Phyllotis</i>
QIN2171	8615	25	9660	9480	30	9540	25.596	69.22	<i>Abrocoma</i>
QIN2172	8980	25	10215	9905	90	10060	25.596	69.22	<i>Abrocoma</i>
QIN218	11035	30	13070	12795	60	12925	25.595	69.235	<i>Abrocoma</i>
QIN219	10480	30	12605	12095	135	12345	25.594	69.235	<i>Phyllotis</i>
QIN220A	9190	25	10485	10230	60	10300	25.594	69.235	*
QIN237A	2140	15	2115	2005	35	2065	25.594	69.235	*
QIN237B	1120	20	1055	925	40	970	25.593	69.231	<i>Abrocoma</i>
QIN238	9565	25	11075	10690	125	10865	25.597	69.238	<i>Abrocoma</i>
QIN242	11705	35	13600	13455	45	13535	25.6	69.24	<i>Abrocoma</i>
QIN243A	10015	25	11625	11265	110	11450	25.597	69.238	<i>Abrocoma</i>
QIN2451	11950	30	14010	13605	100	13775	25.597	69.238	*
QIN2452	9125	25	10340	10185	35	10235	25.597	69.238	*
QIN246	10200	25	11925	11650	55	11810	25.597	69.238	<i>Abrocoma</i>
QIN249B	4230	20	4845	4585	65	4730	25.597	69.239	*
QIN256	345	15	445	305	40	395	25.593	69.231	<i>Abrocoma</i>
QIN259	10105	25	11765	11325	125	11635	25.594	69.234	<i>Abrocoma</i>
QIN260A	1740	15	1700	1535	45	1600	25.593	69.232	<i>Abrocoma</i>