

1 Supplemental figures and information for “Genomic data reveal a loss of diversity in two species  
2 of tuco-tucos (genus *Ctenomys*) following a volcanic eruption”

3 Jeremy L. Hsu, Jeremy C. Crawford, Mauro N. Tammone, Uma Ramakrishnan, Eileen A. Lacey,  
4 and Elizabeth A. Hadly

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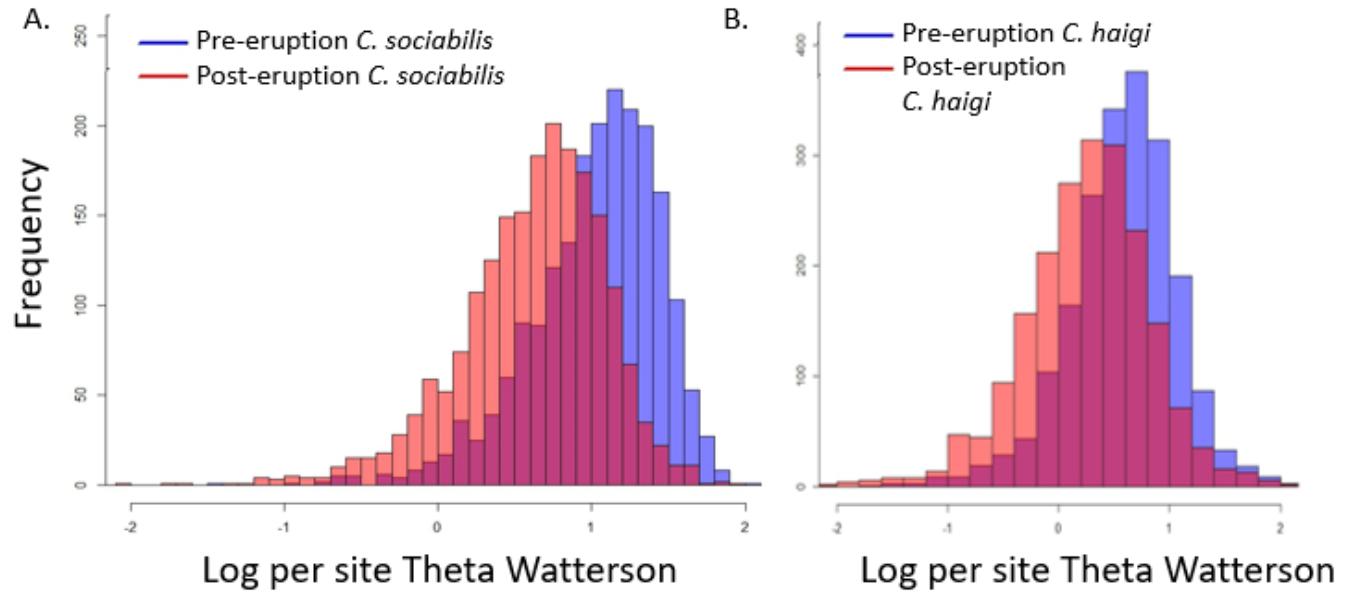
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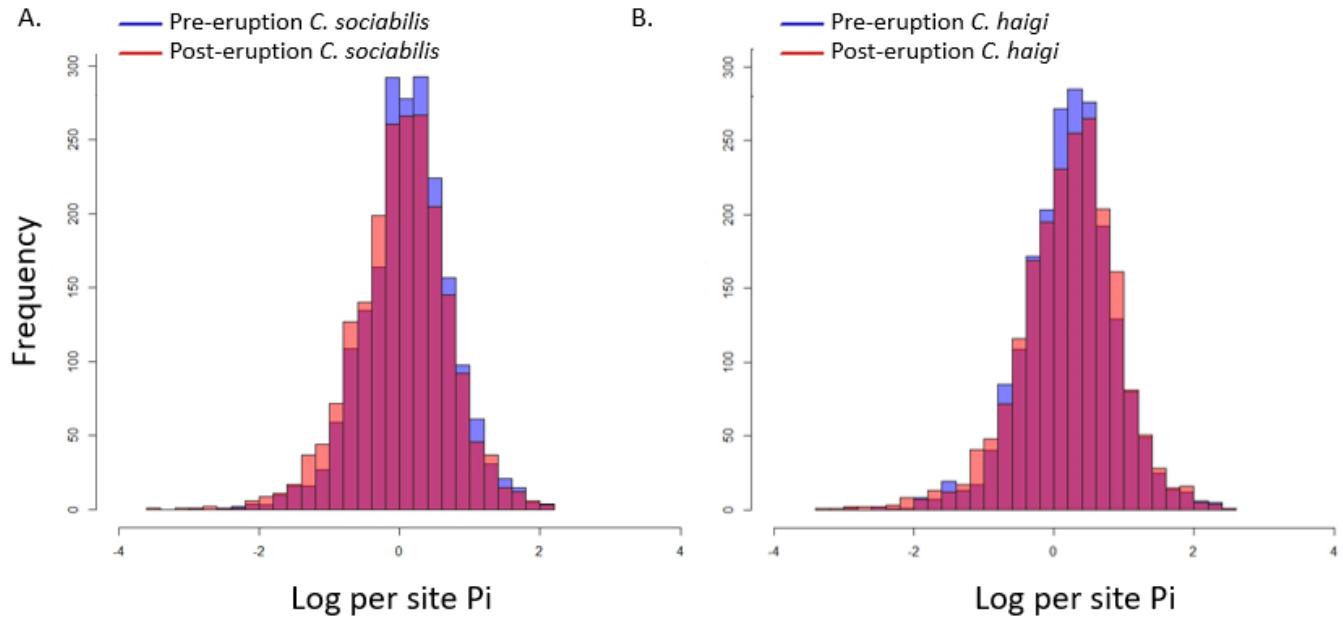
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16 **Supplemental figure 1.** Distribution of global per-site values for Watterson's theta for (A) *C.*  
17 *sociabilis* and (B) *C. haigi*. Values are log-transformed and depict distributions of values for the  
18 focal population of each species for pre-eruption (in blue) and post-eruption (in pink) samples.  
19 Overlap between the two temporal distributions is shown in purple.

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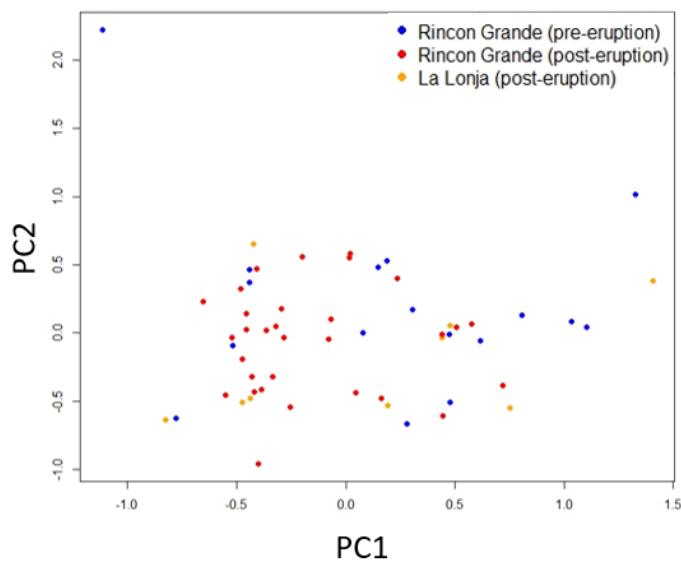
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22 **Supplemental figure 2.** Distribution of global per-site values for  $\pi$  (nucleotide diversity) for **(A)**  
 23 *C. sociabilis* and **(B)** *C. haigi*. Values are log-transformed and depict distributions of values for  
 24 the focal populations of each species for pre-eruption (in blue) and post-eruption (in pink)  
 25 samples. Overlap between the two temporal distributions is shown in purple.

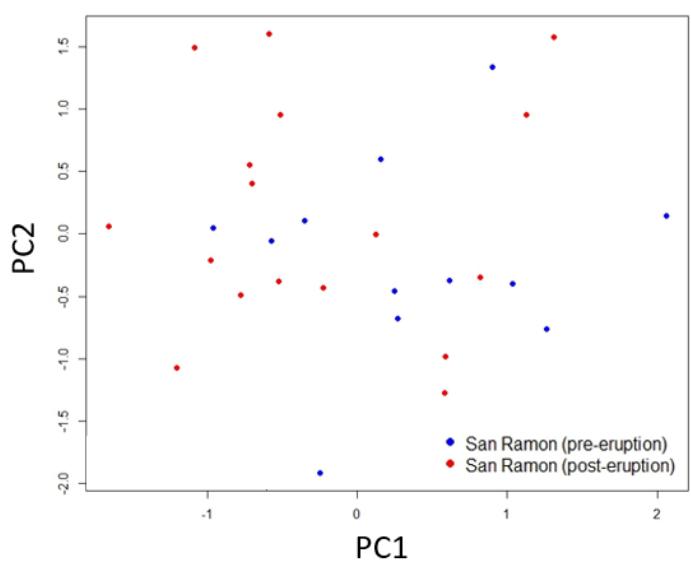
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A.



B.



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29 **Supplemental figure 3.** Plots of principal component analyses of genetic variation in (A) *C.*  
30 *sociabilis* and (B) *C. haigi*. PC1 and PC2 accounted for 4.9% and 4.1% of variation,  
31 respectively, for *C. sociabilis*, and 6.7% and 6.2%, respectively, for *C. haigi*.

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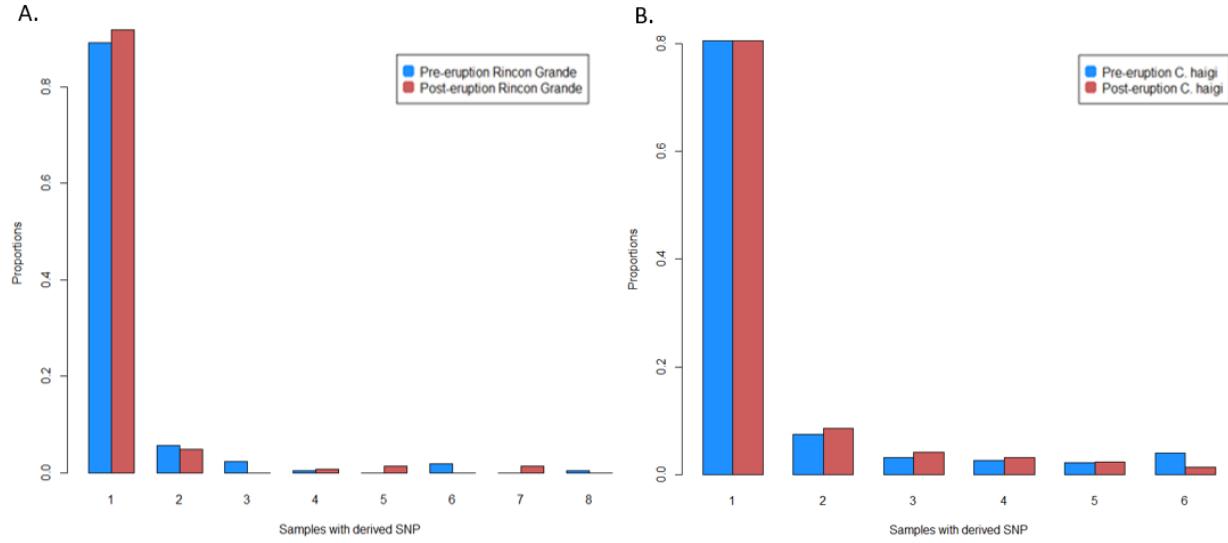
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42 **Supplemental figure 4.** Comparisons of site frequency spectra for pre- and post-eruption focal  
 43 populations of (A) *C. sociabilis* and (B) *C. haigi* using scaled, proportional values of allele  
 44 frequencies.

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53 **Supplemental data.** Spreadsheet of specimens included in study.

List of individuals sampled for analyses of pre- and post-eruption genetic variation. For each study species, the population or origin is indicated, as is the relative age (adult or juvenile) and the year of collection. The field identification number for each individual is also provided; because analyses were based on non-destructive tissue samples collected as part of long-term capture-mark-recapture studies, voucher specimens for these samples were not deposited in a museum collection.

|               | <b>Species</b>       | <b>Population</b> | <b>Individual ID number</b> | <b>Sex</b> | <b>Age</b>     | <b>Year of collection</b> | <b>Burrow system</b> |
|---------------|----------------------|-------------------|-----------------------------|------------|----------------|---------------------------|----------------------|
| Post-eruption | <i>C. sociabilis</i> | Rincon Grande     | 4729296A3B (1)              | Female     | Juvenile       | 2011                      | ACENT                |
|               | <i>C. sociabilis</i> | Rincon Grande     | 5339240218 (2)              | Male       | Juvenile       | 2011                      | ACENT                |
|               | <i>C. sociabilis</i> | Rincon Grande     | 472825365F (3)              | Male       | Juvenile       | 2011                      | ACENT                |
|               | <i>C. sociabilis</i> | Rincon Grande     | 46360A1D55 (4)              | Female     | Adult          | 2011                      | OA                   |
|               | <i>C. sociabilis</i> | Rincon Grande     | 5341DA5232 (5)              | Male       | Juvenile       | 2011                      | F                    |
|               | <i>C. sociabilis</i> | Rincon Grande     | 472A2E7441 (6)              | Female     | Juvenile       | 2011                      | OA                   |
|               | <i>C. sociabilis</i> | Rincon Grande     | 47247A1001 (7)              | Male       | Juvenile       | 2011                      | OA                   |
|               | <i>C. sociabilis</i> | Rincon Grande     | 472E0D0649 (8)              | Female     | Adult          | 2011                      | ACENT                |
|               | <i>C. sociabilis</i> | Rincon Grande     | 53393C5307 (9)              | Male       | Juvenile       | 2011                      | OA                   |
|               | <i>C. sociabilis</i> | Rincon Grande     | 47246B7419 (10)             | Male       | Juvenile       | 2011                      | AEXN                 |
|               | <i>C. sociabilis</i> | Rincon Grande     | 471F1B0265 (11)             | Male       | Juvenile       | 2011                      | AEXN                 |
|               | <i>C. sociabilis</i> | Rincon Grande     | Male Juvenile (12)          | Male       | Juvenile       | 2011                      | ACENT                |
|               | <i>C. sociabilis</i> | Rincon Grande     | 472E15017F (13)             | Male       | Juvenile       | 2011                      | OA                   |
|               | <i>C. sociabilis</i> | Rincon Grande     | 450761026A (14)             | Female     | Adult          | 2011                      | MIDMALLIN            |
|               | <i>C. sociabilis</i> | Rincon Grande     | 4724762104 (15)             | Male       | Juvenile       | 2011                      | ACENT                |
|               | <i>C. sociabilis</i> | Rincon Grande     | 472D79322B (16)             | Female     | Juvenile       | 2011                      | FINT                 |
|               | <i>C. sociabilis</i> | Rincon Grande     | 447902125C (17)             | Female     | Juvenile       | 2011                      | FN1                  |
|               | <i>C. sociabilis</i> | Rincon Grande     | 472A452620 (18)             | Female     | Juvenile       | 2011                      | F                    |
|               | <i>C. sociabilis</i> | Rincon Grande     | 447B607D0B (19)             | Female     | Juvenile       | 2011                      | ACENT                |
|               | <i>C. sociabilis</i> | Rincon Grande     | 471F217527 (20)             | Male       | Juvenile       | 2011                      | OA                   |
|               | <i>C. sociabilis</i> | Rincon Grande     | 47256F140B (21)             | Female     | Juvenile       | 2011                      | F                    |
|               | <i>C. sociabilis</i> | Rincon Grande     | 47242E1C5C (22)             | Female     | Juvenile       | 2011                      | AEXN                 |
|               | <i>C. sociabilis</i> | Rincon Grande     | 447F254C70 (23)             | Female     | Adult          | 2011                      | AEXN                 |
|               | <i>C. sociabilis</i> | Rincon Grande     | 47261B1971 (24)             | Female     | Juvenile       | 2011                      | ANE                  |
|               | <i>C. sociabilis</i> | Rincon Grande     | 47282F2D40 (25)             | Male       | Juvenile       | 2011                      | FN1                  |
|               | <i>C. sociabilis</i> | Rincon Grande     | 472A5D74D4 (26)             | Female     | Adult          | 2011                      | AN-NE                |
|               | <i>C. sociabilis</i> | Rincon Grande     | 47243E182A (27)             | Female     | Juvenile       | 2011                      | AEXN                 |
|               | <i>C. sociabilis</i> | Rincon Grande     | 46555F3843 (28)             | Male       | Juvenile       | 2011                      | ANE                  |
|               | <i>C. sociabilis</i> | Rincon Grande     | 4635650403 (29)             | Female     | Juvenile       | 2011                      | OA                   |
|               | <i>C. sociabilis</i> | Rincon Grande     | 447F2F2C3A (30)             | Male       | Juvenile       | 2011                      | FN1                  |
|               | <i>C. sociabilis</i> | Rincon Grande     | 4724562204 (31)             | Female     | Juvenile       | 2011                      | FN1                  |
| Pre-eruption  | <i>C. sociabilis</i> | La Lonja          | LL1                         | Male       | Juvenile       | 2010                      | NA                   |
|               | <i>C. sociabilis</i> | La Lonja          | LL2                         | Female     | Adult          | 2010                      | NA                   |
|               | <i>C. sociabilis</i> | La Lonja          | LL3                         | Male       | Juvenile       | 2010                      | NA                   |
|               | <i>C. sociabilis</i> | La Lonja          | LL4                         | Male       | Juvenile       | 2010                      | NA                   |
|               | <i>C. sociabilis</i> | La Lonja          | LL5                         | Female     | Adult          | 2010                      | NA                   |
|               | <i>C. sociabilis</i> | La Lonja          | LL6                         | Female     | Adult          | 2010                      | NA                   |
|               | <i>C. sociabilis</i> | La Lonja          | LL7                         | Male       | Juvenile       | 2010                      | NA                   |
|               | <i>C. sociabilis</i> | La Lonja          | LL8                         | Male       | Juvenile       | 2010                      | NA                   |
|               | <i>C. sociabilis</i> | La Lonja          | LL9                         | Male       | Juvenile       | 2010                      | NA                   |
| Pre-eruption  | <i>C. sociabilis</i> | Rincon Grande     | CS-535                      | Male       | Juvenile       | 2001                      | Pepsilt              |
|               | <i>C. sociabilis</i> | Rincon Grande     | CS-502                      | Female     | Juvenile       | 2001                      | G                    |
|               | <i>C. sociabilis</i> | Rincon Grande     | CS-482                      | Male       | Juvenile       | 2001                      | FN2                  |
|               | <i>C. sociabilis</i> | Rincon Grande     | CS-424                      | Female     | Juvenile       | 2001                      | EC1                  |
|               | <i>C. sociabilis</i> | Rincon Grande     | CS-511                      | Male       | Juvenile       | 2001                      | ECO.5                |
|               | <i>C. sociabilis</i> | Rincon Grande     | CS-570                      | Female     | Juvenile       | 2001                      | ASS-1                |
|               | <i>C. sociabilis</i> | Rincon Grande     | CS-543                      | Male       | Juvenile       | 2001                      | AS                   |
|               | <i>C. sociabilis</i> | Rincon Grande     | CS-611                      | Male       | Juvenile       | 2001                      | AN                   |
|               | <i>C. sociabilis</i> | Rincon Grande     | CS-540                      | Male       | Juvenile       | 2001                      | AB                   |
|               | <i>C. sociabilis</i> | Rincon Grande     | CS-507                      | Male       | Juvenile       | 2001                      | 54                   |
|               | <i>C. sociabilis</i> | Rincon Grande     | CS-392                      | Female     | Adult          | 2001                      | Pepsilt              |
|               | <i>C. sociabilis</i> | Rincon Grande     | CS-895                      | Female     | Adult          | 2001                      | ECO                  |
|               | <i>C. sociabilis</i> | Rincon Grande     | CS-436                      | Female     | Adult          | 2001                      | ASS-2                |
|               | <i>C. sociabilis</i> | Rincon Grande     | CS-385                      | Female     | Adult          | 2001                      | AN                   |
|               | <i>C. sociabilis</i> | Rincon Grande     | CS-394                      | Female     | Adult          | 2001                      | AN                   |
|               | <i>C. sociabilis</i> | Rincon Grande     | CS-836                      | Female     | Adult          | 2001                      | FN1                  |
|               | <i>C. sociabilis</i> | Rincon Grande     | CS-380                      | Female     | Adult          | 2001                      | 54                   |
| Post-eruption | <i>C. haigi</i>      | San Ramon         | 2                           | Male       | Juvenile       | 2013                      | NA                   |
|               | <i>C. haigi</i>      | San Ramon         | 3                           | Female     | Adult          | 2013                      | NA                   |
|               | <i>C. haigi</i>      | San Ramon         | 4                           | Female     | Juvenile       | 2013                      | NA                   |
|               | <i>C. haigi</i>      | San Ramon         | 5                           | Female     | Adult          | 2013                      | NA                   |
|               | <i>C. haigi</i>      | San Ramon         | 6                           | Female     | Juvenile       | 2013                      | NA                   |
|               | <i>C. haigi</i>      | San Ramon         | 7                           | Male       | Adult          | 2013                      | NA                   |
|               | <i>C. haigi</i>      | San Ramon         | 8                           | Female     | Juvenile       | 2013                      | NA                   |
|               | <i>C. haigi</i>      | San Ramon         | 9                           | Female     | Juvenile       | 2013                      | NA                   |
|               | <i>C. haigi</i>      | San Ramon         | 10                          | Female     | Adult          | 2013                      | NA                   |
|               | <i>C. haigi</i>      | San Ramon         | 11                          | Male       | Juvenile       | 2013                      | NA                   |
|               | <i>C. haigi</i>      | San Ramon         | 12                          | Female     | Adult          | 2013                      | NA                   |
|               | <i>C. haigi</i>      | San Ramon         | 13                          | Male       | Adult          | 2013                      | NA                   |
|               | <i>C. haigi</i>      | San Ramon         | 14                          | Female     | Adult          | 2013                      | NA                   |
|               | <i>C. haigi</i>      | San Ramon         | 15                          | Female     | Adult          | 2013                      | NA                   |
|               | <i>C. haigi</i>      | San Ramon         | 16                          | Female     | Adult          | 2013                      | NA                   |
|               | <i>C. haigi</i>      | San Ramon         | 19                          | Female     | Juvenile       | 2013                      | NA                   |
|               | <i>C. haigi</i>      | San Ramon         | 20                          | Female     | Adult          | 2013                      | NA                   |
| Pre-eruption  | <i>C. haigi</i>      | San Ramon         | CH-218                      | Male       | Adult          | 2002                      | NA                   |
|               | <i>C. haigi</i>      | San Ramon         | CH-222                      | Female     | Adult          | 2002                      | NA                   |
|               | <i>C. haigi</i>      | San Ramon         | CH-227                      | Female     | Adult          | 2002                      | NA                   |
|               | <i>C. haigi</i>      | San Ramon         | CH-228                      | Female     | Adult          | 2002                      | NA                   |
|               | <i>C. haigi</i>      | San Ramon         | CH-236                      | Male       | Adult          | 2002                      | NA                   |
|               | <i>C. haigi</i>      | San Ramon         | CH-237                      | Female     | Adult          | 2002                      | NA                   |
|               | <i>C. haigi</i>      | San Ramon         | CH-240                      | Female     | Adult          | 2002                      | NA                   |
|               | <i>C. haigi</i>      | San Ramon         | CH-242                      | Male       | Adult          | 2002                      | NA                   |
|               | <i>C. haigi</i>      | San Ramon         | CH-243                      | Female     | Adult          | 2002                      | NA                   |
|               | <i>C. haigi</i>      | San Ramon         | CH-220                      | Male       | Juvenile (#4)  | 2002                      | NA                   |
|               | <i>C. haigi</i>      | San Ramon         | CH-221                      | Male       | Juvenile (#11) | 2002                      | NA                   |
|               | <i>C. haigi</i>      | San Ramon         | CH-238                      | Male       | Juvenile (#10) | 2002                      | NA                   |