**Table S1. Burrow fills registered in the late Miocene Cerro Azul Formation. References: SC: slightly curved, SI: sinuous, C: "C" shaped, E: elliptical, S: subcircular, PC: planoconvex, * approximate value, () minimum value. Dh= horizontal diameter, Dv= vertical diameter. Body mass estimation after Wu et al. (2015).**

| burrow # | plan view pattern | cross-sectional shape | Dh (cm) | Dv (cm) | Dv/Dh | Cross section area ($cm^2$) | Body mass estimate (kg) | Bone remains inside burrow fill |
|---|---|---|---|---|---|---|---|---|
| **Salinas Grandes de Hidalgo** (SG, 37º 12' 55"S, 63º 35' 25"W) | | | | | | | | |
| 658 | SC | | 20 | (8) | | | | |
| 640 | | E | 23 | 17 | 0.74 | | | |
| 647 | | E | 39 | 20 | 0.51 | 1693.3 | 59.12 | |
| 632 B | | S | 40 | 37 | 0.92 | 2712.3 | 122.04 | |
| 662 | | E | 40 | 20 | 0.5 | 1250.9 | 37.10 | |
| 622 A | SI | | 42 | | | | | |
| 635 | | E (PC) | 46 | 28 | 0.61 | 2122.7 | 83.70 | |
| 657 | SC | | 46 | 28 | 0.61 | | | |
| 637 | | S | 54 | 57 | 1.05 | 2686.7 | 120.27 | |
| 629 | | | *56 | 35 | | | | |
| 665 | | | *60 | (30) | | | | *Proscelidodon* sp. |
| 661 | SC | | 63 | (35) | | | | |
| 622 B | SC | | 64 | | | | | |
| 623 | SI | | 64 | | | | | |
| 646 | | E | 64 | 38 | 0.59 | 3867.5 | 210.65 | |
| 661 A | | | 65 | (32) | | | | |
| 649 | | E | 66 | 42 | 0.64 | 3939.5 | 216.72 | |
| 664 | SC | | 68 | | | | | |
| 663 | | E | 69 | 41 | 0.59 | | | |
| 611 | SC | | 70 | | | | | |
| 645 | | | 70 | (26) | | | | |
| 644 | | E (PC) | 71 | 33 | 0.46 | 2999.6 | 142.49 | |
| 626 | C | | 72 | | | | | |
| 631 | | E | 72 | 41 | 0.57 | 6230.6 | 438.72 | |
| 648 | | E | 73 | 39 | 0.53 | 3585.6 | 187.50 | |
| 659 A | | | 74 | (34) | | | | |
| 615 | SC | | 75 | | | | | |
| 617 | SC | | 75 | | | | | |
| 613 B | SC | | 76 | | | | | |
| 619 | SC | | 78 | | | | | |
| 612 | SC | | 79 | | | | | |
| 614 | SC | | 80 | | | | | |
| 616 | SC | | 80 | | | | | |
| 620 | SC | | 80 | | | | | |
| 621 | SC | | 80 | | | | | |
| 624 A | SI | | 80 | | | | | |
| 624 B | SC | | 83 | | | | | |
| 613 A | SC | | 85 | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 618 | SC | | 87 | | | | | |
| 638 | | E | 88 | 40 | 0.45 | 5692.4 | 381.79 | |
| 641 | | E | 88 | 52 | 0.59 | | | |
| 625 | SC | | 92 | | | | | |
| 633 | | E | 98 | 47 | 0.48 | | | |
| 659 | | E | 105 | 67 | 0.64 | 9278.1 | 809.53 | |
| 634 | | E | 106 | 46 | 0.43 | | | |
| 639 | | E | 106 | 60 | 0.57 | 8566.8 | 716.04 | |
| 643 | | E | 114 | 60 | 0.53 | 9190.5 | 797.80 | |
| 642 | | E (PC) | 125 | 92 | 0.74 | 12825.8 | 1332.23 | |
| 628 | | E | *126 | 50 | | 8504.7 | 708.07 | |
| 630 | | E (PC) | 128 | 80 | 0.62 | 14580.6 | 1622.77 | |
| 632 A | | E | 150 | 76 | 0.51 | 14183.6 | 1555.29 | Glyptodontidae indet. |
| 636 | | | | 56 | | | | |
| 660 | | | | | | | | Undetermined |
| **Laguna La Paraguaya** (LLP, 37° 5'53.57"S; 62°47'34.98"W) | | | | | | | | |
| 680 B | SC | | 15 | | | | | |
| 698 | SC | | 27 | | | | | *Paedotherium minor* |
| 675 | SC | | 28 | (16) | | | | |
| 682 | SC | | 28 | (8) | | | | |
| 674 | SC | | 30 | (13) | | | | |
| 714 | SC | | 32 | (4) | | | | |
| 694 | SC | | 34 | (18) | | | | |
| 683 | | S | 39 | 29 | 0.74 | 2270.6 | 92.84 | |
| 697 | SC | | 40 | (17) | | | | |
| 710 | SC | | 40 | (20) | | | | |
| 672 | SC | | 42 | (25) | | | | |
| 709 | SC | | 42 | (24) | | | | |
| 720 | SC | | 43 | (5) | | | | *Doellotatus* sp. |
| 686 | C | | 44 | (18) | | | | |
| 696 | SC | | 44 | (30) | | | | |
| 676 | SC | | 45 | (23) | | | | |
| 679 | SC | | 45 | (10) | | | | |
| 723 | SC | | 46 | (12) | | | | Undetermined |
| 701 | SC | | 47 | | | | | Undetermined |
| 687 | SC | | 50 | | | | | Glyptodontidae indet. |
| 688 | SC | | 50 | (38) | | | | Glyptodontidae indet. |
| 708 | SC | | 50 | (36) | | | | |
| 680 A | SC | | 52 | (16) | | | | |
| 692 | SC | | 52 | (20) | | | | |
| 699 | SC | | 52 | (14) | | | | *Paedotherium minor* |
| 718 | | S | 52 | 38 | 0,.73 | 2477.3 | 106.16 | |
| 703 | C | | 54 | (25) | | | | |
| 715 | SC | | 54 | 35 | | | | |
| 722 | | S | 54 | 42 | 0.77 | 3205.4 | 157.80 | |
| 673 | SC | | 55 | (33) | | | | |
| 700 | SC | | 55 | (10) | | | | |
| 690 | SC | | 56 | (43) | | | | |
| 706 | SC | | 56 | (15) | | | | |
| 713 | | S | 56 | 47 | 0.84 | 3566.8 | 185.99 | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 669 | SC | | 58 | (28) | | | | |
| 671 | SC | | 43 | (26) | | | | |
| 693 | SC | | 58 | (20) | | | | |
| 716 | SC | | 58 | 54 | | | | |
| 668 | SC | | 60 | (35) | | | | |
| 677 | SC | | 60 | (15) | | | | |
| 691 | SC | | 60 | (24) | | | | |
| 695 | SI | | 60 | (28) | | | | |
| 705 | C | | 60 | (18) | | | | |
| 711 | SC | | 60 | 36 | | | | |
| 712 | SC | | 62 | 54 | | | | |
| 719 | | E | 64 | 27 | 0.42 | 5413.2 | 353.36 | |
| 717 | SC | | 67 | (9) | | | | |
| 685 | C | | 68 | (14) | | | | |
| 704 | SC | | 68 | | | | | |
| 689 | SC | | 70 | (19) | | | | Mesotheriinae indet. |
| 678 | SC | | 74 | (27) | | | | |
| 702 | SC | | 78 | | | | | *Eosclerocalyptus* sp. |
| 667 | SC | | 79 | | | | | |
| 681 | SC | | 80 | (20) | | | | |
| 707 | SC | | 85 | (35) | | | | |
| 670 | SC | | 94 | (35) | | | | Glyptodontidae indet. |
| 721 | SC | | 94 | (14) | | | | |
| 666 | SC | | 97 | (32) | | | | |
| 684 | SC | | 115 | (40) | | | | |
| **Laguna Chillhué** (LC, 37°19'15.13"S; 64°14'31.52"W) | | | | | | | | |
| 655 | | E | 55 | 29 | 0.53 | 1263.3 | 37.67 | |
| 655 A | | E | 80 | 42 | 0.52 | 3045.2 | 145.83 | |
| 656 | | | 89 | (25) | | | | |

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