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***GREVY'S ZEBRA** *Equus grevyi* IUCN(E)

Abu Dhabi 1.6(1.4); Amersfoort Ne 3.5(3.3); Amsterdam Ne 2.3(2.3); Askaniya-Nova USSR 1.2(1.2); Banham GB 1.2(1.2); Baton Rouge USA 2.4(2.3); Berlin E Ge 1.1(1.1); Berlin W Ge 1.2(1.2); Brownsville USA 2.1(2.1); Budapest Hun 1.2(1.2); Catskill USA 14.13(14.13); Chicago Br USA 2.4(2.3); Chicago LP USA 3.5(3.5); Colorado USA 1.2(1.2); Columbus USA 0.2(0.2); Dallas USA 1.4(1.4); Denver USA 2.2(2.2); Dvur Kralove Cz 3.17(3.16); Frankfurt Ge 2.3(2.2); Frejus Fr 1.0(1.0); Gottwaldov Cz 1.0(1.0); Granby Can 1.2(1.2); Hamburg Ge 4.3(3.0); Hilvarenbeek Ne 3.4(3.2); Katowice Pol 3.1(2.0); Kobe Jap 1.0; Kyoto Jap 1.1(1.1); Leipzig Ge 1.2(1.1); Leningrad USSR 1.1(1.1); Los Angeles USA 1.2(1.2); Magdeburg Ge 1.3(1.3); Marwell GB 4.7(4.4); Miami MZ USA 1.3(0.1); Misaki Jap 1.4(1.4); Monroe USA 2.5(1.3); Morelia Mex 1.0(1.0); Mulhouse Fr 1.1(1.1); Mysore Ind 1.0; NY Bronx USA 3.6(3.4); NY Bronx SCSC USA 1.7(1.5); Nikolaev USSR 1.0(1.0); Nuremberg Ge 2.3(2.1); Oberwil Switz 3.4(3.4); Oklahoma USA 2.2(1.1); Ostrava Cz 2.2(2.2); Paris PZ Fr 1.1; Phoenix USA 2.2(0.0); Poznan Pol 1.2(1.2); Prague Cz 2.2(1.1); Pretoria SA 1.1(1.1); Ramat-Gan Is 1.3(1.0); Rhenen Ne 1.2(1.2); Riga USSR 1.1(1.1); Rome It 1.1(0.1); Royan Fr 2.3(2.2); Sacramento USA 1.4(1.3); St Louis USA 1.4(1.4); St Paul USA 2.3(2.1); San Antonio USA 1.4(1.3); San Diego WAP USA 6.9(6.9); Sao Paulo Braz 4.4(3.4); Seoul Kor 2.3; Taipei Tai 2.2; Tampa USA 9.28(8.27); Tashkent USSR 1.0(1.0); Tokyo Tama Jap 3.2(3.2); Toronto Can 3.6(3.5); Tucson RP USA 3.2(2.1); Tunis Tunisia 1.0; Tyler USA 2.2(2.2); Vienna Aus 1.2(1.2); Whipsnade GB 2.4; Yokohama Jap 1.0(1.0); Yulee USA 1.7(1.7).

Total: 146.248(128.196) in 75 collections.

No data 1988: Augsburg Ge 1.2(1.2); Boston USA 1.3(1.1).

Breeding loans from Asheboro (at NY Bronx); Cambridge (at Hilvarenbeek); Chester (at Whipsnade); Colorado (at St Paul); Columbus (at Dallas); Dallas (at Chicago Br); Marwell (at Chicago Br); Monroe (at Chicago Br); Oklahoma (at Denver); Sacramento (at Oklahoma and St Louis); St Louis (at Chicago Br, NY Bronx, NY Bronx SCSC, St Paul and Tyler); San Antonio (at Baton Rouge); Stoneham (at NY Bronx); Yulee (at San Antonio).

Studbook held: see List of studbooks and world registers.

***HARTMANN'S MOUNTAIN ZEBRA**

Equus zebra hartmannae IUCN(V)

Amsterdam Ne 1.3(1.3); Berlin E Ge 2.2(2.1); Berlin W Ge 1.3(1.3); Bloemfontein SA 2.1(2.1); Catskill USA 1.2(1.2); Dvur Kralove Cz 5.6(5.5); Gelsenkirchen Ge 1.0(1.0); Glendale USA 1.0(1.0); Kawasaki Jap 2.3(2.3); Lisbon Port 1.0; London ZSL GB 1.2(1.2); Los Angeles USA 2.2(1.1); Madison USA 1.3(1.3); Mallorca Sp 1.7(1.7); Marwell GB 2.11(2.11); Munich Ge 2.3(1.2); Naples It 1.1(1.1); Paris PZ Fr 1.4; Prague Cz 1.2(0.2); Pretoria SA 1.1(1.0); San Diego WAP USA 5.16(5.16); Santo Domingo Dom 0.5; Tunis Tunisia 1.1.

Total: 36.78(30.63) in 23 collections.

Studbook held: see List of studbooks and world registers.

***BAIRD'S TAPIR** *Tapirus bairdi* IUCN(V)

Columbia USA 1.1(0.1); Columbus USA 1.1(1.1); Los Angeles USA 3.3(2.3); Miami MZ USA 2.2(2.2); Morelia Mex 1.0; Mysore Ind 0.2; Yokohama KNP Jap 1.0(1.0).

Total: 9.9(6.7) in 7 collections.

Studbook held: see List of studbooks and world registers.

***MALAYAN TAPIR** *Tapirus indicus* IUCN(E)

Aalborg Den 1.1(0.1); Amsterdam Ne 1.2(0.1); Antwerp Bel 1.1(1.0); Bangkok Thai 5.5; Berlin W Ge 1.1; Chicago Br USA 0.1(0.1); Chiangmai Thai 1.2; Cincinnati USA 1.1(1.1); Copenhagen Den 1.3(1.3); Detroit USA 1.1(0.1); Dortmund Ge 1.3(1.3); Dresden Ge 1.1(1.1); Fukuoka Jap 1.1(1.1); Heidelberg Ge 1.2(1.1); Ito Jap 1.0(1.0); Jakarta Indon 5.3; Katowice Pol 1.0; Kuala Lumpur Mal 2.4(2.4); Lympne GB 2.2(2.0); Marwell GB 1.2(1.2); Memphis USA 1.2(1.2); Miami MZ USA 2.1(1.0); Milwaukee USA 1.2(1.1); Minneapolis USA 1.1(1.1); Mulhouse Fr 1.2(1.2); Munich Ge 1.1(1.1); Nagoya Jap 1.1(1.1); NY Bronx USA 3.3(2.2); Nuremberg Ge 1.2(1.2); Oklahoma USA 1.1(1.1); Ostrava Cz 1.0(1.0); Philadelphia USA 1.1(1.1); Poznan Pol 1.0; Prague Cz 1.1(1.1); Pretoria SA 1.1(1.1); Rotterdam Ne 0.3(0.2); St Louis USA 3.2(2.1); San Diego USA 1.1(1.1); San Diego WAP USA 1.0(1.0); Sapporo Jap 1.0(1.0); Sao Paulo Braz 0.2(0.1); Seoul Kor 1.0; Shizuoka Jap 1.1(0.1); Singapore 2.5(1.2); Taipei Tai 0.1; Tokyo Tama Jap 2.2(2.2); Toronto Can 1.3(1.3); Twycross GB 1.1(1.1); Vienna Aus 1.1(0.1); Washington NZP USA 1.1(1.1); Yokohama Jap 1.1(1.0).

Total: 64.79(40.52) in 51 collections.

No data 1988: Stuttgart Ge 1.2(1.2).

Breeding loans from Antwerp (at Marwell, Mulhouse and Rotterdam); Arnhem (at Amsterdam); Berlin W and Dortmund (at Heidelberg); Colorado (at Chicago Br); Copenhagen (at Aalborg); Heidelberg (at Berlin W); London ZSL (at Rotterdam); Milwaukee (at Detroit and Toronto); Minneapolis (at Washington NZP); Monroe (at Detroit); Philadelphia (at Cincinnati); Prague (at Ostrava); Rotterdam (at Antwerp, Mulhouse and Philadelphia); St Louis (at Chicago Br, Milwaukee and NY Bronx).

Studbook held: see List of studbooks and world registers.

***MOUNTAIN or WOOLLY TAPIR** *Tapirus pinchaque* IUCN(V)

Los Angeles USA 2.2(1.2).

No data 1988: Stuttgart Ge 1.1.

***INDIAN RHINOCEROS** *Rhinoceros unicornis* IUCN(E)

Amsterdam Ne 1.0(1.0); Basle Switz 1.2(1.2); Berlin E Ge 1.1(1.0); Berlin W Ge 1.1(1.1); Bhubaneswar Ind 1.1; Bombay Ind 1.0; Calcutta Ind 2.1(1.0); Chester GB 1.0(1.0); Chiangmai Thai 1.1; Cologne Ge 1.1(1.1); Delhi Ind 2.0(1.0); Dvur Kralove Cz 2.1(2.1); Hamburg Ge 1.1(1.1); Los Angeles USA 2.2(1.1); Madras Ind 1.0; Miami MZ

- USA 2.0(1.0); Mysore Ind 1.1; Nagoya Jap 1.1(1.1); NY Bronx USA 3.3(3.1); Oklahoma USA 1.1(0.1); Philadelphia USA 1.2(0.1); Planckendael Bel 3.2(2.2); Rotterdam Ne 1.0(1.0); San Diego USA 1.0(1.0); San Diego WAP USA 3.4(3.4); San Francisco USA 1.1; Sao Paulo Braz 1.0(1.0); Seoul Kor 1.0; Tokyo Tama Jap 1.1; Toronto Can 1.1(1.1); Washington NYP USA 1.2(1.0); Whipsnade GB 1.1; Yokohama KNP Jap 1.1(1.1).
Total: 44.33(28.19) in 33 collections.

No data 1988: Kanpur Ind 2.1(2.1); Stuttgart Ge 3.1(3.1).

Breeding loans from Amsterdam (at Whipsnade); Miami MZ (at Philadelphia); NY Bronx (at Oklahoma); Oklahoma (at NY Bronx); San Diego (at Washington NYP); Stuttgart (at Cologne and Rotterdam); Washington NYP (at Oklahoma and NY Bronx); Whipsnade (at Antwerp).

Studbook held: see List of studbooks and world registers.

- ***SUMATRAN RHINOCEROS** *Dicerorhinus sumatrensis* IUCN(E)
Jakarta Indon 1.1; Lympne GB 1.0.

Studbook held: see List of studbooks and world registers.

- SOUTHERN WHITE or SQUARE-LIPPED RHINOCEROS** *Ceratotherium s. simum*
Total: 167.197.2(67.69) in 124 collections.

- ***NORTHERN WHITE or SQUARE-LIPPED RHINOCEROS** *C. s. cottoni* IUCN(E)
Chester GB 1.1(1.1); Dvur Kralove Cz 4.6(1.2); Frejus Fr 1.0; San Diego WAP USA 1.0.
Total: 7.7(2.3) in 4 collections.

Species total: 174.204.2(69.72) in 126 collections.

Breeding loan from London ZSL (at Dvur Kralove).

Studbook held: see List of studbooks and world registers.

- ***BLACK RHINOCEROS** *Diceros bicornis* IUCN(E)
Alma-Ata USSR 1.1(1.0); Atlanta USA 0.1; Berlin W Ge 2.5(1.3); Buenos Aires Arg 0.1(0.1); Bulawayo Zim 2.2; Chicago Br USA 3.2(3.1); Chicago LP USA 1.2(1.2); Cincinnati USA 2.2(1.1); Colorado USA 1.1(1.1); Columbus USA 1.0; Dallas USA 0.2; Delhi Ind 1.3(1.3); Denver USA 3.2(3.2); Detroit USA 0.1(0.1); Dvur Kralove Cz 4.5(4.3); Frankfurt Ge 1.0(1.0); Garden City USA 0.1; Hiroshima Jap 2.2(1.1); Hohenhausen Ge 2.2(1.0); Kuala Lumpur Mal 1.0; Leipzig Ge 1.0; Lisbon Port 1.0(1.0); London ZSL GB 1.1; Los Angeles USA 3.5(2.3); Lympne GB 3.3(3.1); Magdeburg Ge 2.2(1.1); Miami MZ USA 3.4(2.2); Mysore Ind 2.2; Nagoya Jap 1.2(1.2); Naples It 1.1; Oklahoma USA 0.1; Osaka Jap 1.1(1.1); Ramat-Gan Is 1.0; Rome It 0.1(0.1); St Louis USA 1.2(0.1); San Antonio USA 1.2(0.2); San Diego USA 2.1(1.0); San Diego WAP USA 3.2(3.1); San Francisco USA 1.1; Sao Leopoldo Braz 0.1(0.1); Sydney Austral 1.2(1.1); Taipei Tai 1.2(1.2); Tampa USA 1.1(1.0); Tyler USA

0.2(0.2); Vienna Aus 1.0; Whipsnade GB 1.1; Wichita USA 1.1(1.1); Zurich Switz 2.3(1.1).
Total: 63.79(39.42) in 48 collections.

Breeding loans from Boston (at Miami MZ); Chicago Br (at San Diego WAP); Cincinnati (at Chicago Br, Chicago LP, San Diego WAP and Tyler); Denver (at Kansas); Detroit (at Miami MZ, Oklahoma, St Louis and Tyler); Frankfurt (at Zurich); London ZSL (at Chester and Marwell); Oklahoma (at Detroit); Perth (at Sydney); San Francisco (at Chicago LP); Zurich (at Frankfurt).

Studbook held: see List of studbooks and world registers.

ARTIODACTYLA

- ***JARVAN WARTY PIG** *Sus verrucosus* IUCN(V)†

No data 1988: Surabaya Indon 4.4.3.

†not listed on questionnaire.

- ***BABIRUSA** *Babirusa babirusa* IUCN(V)
Antwerp Bel 8.8; Berlin W Ge 2.3; Copenhagen Den 1.1; Frankfurt Ge 1.1; Jakarta Indon 6.6(3.1); Jersey GB 3.2; Leipzig Ge 1.1; Los Angeles USA 1.1; NY Bronx USA 3.1; Nuremberg Ge 2.2; Rotterdam Ne 3.4.
Total: 31.30 in 11 collections; most are presumed captive bred—see Key 6.

No data 1988: Stuttgart Ge 4.3(3.2); Surabaya Indon 17.14.12(0.1.5).

Breeding loans from Antwerp (at Copenhagen, Jersey, Nuremberg and Rotterdam); Lympne (at Antwerp); Rotterdam (at Copenhagen and Jersey); Stuttgart (at Berlin W and Frankfurt).

Studbook held: see List of studbooks and world registers.

- ***PYGMY HIPPOPOTAMUS** *Choeropsis liberiensis* IUCN(V)

Aalborg Den 1.2(0.1); Adelaide Austral 1.3(1.3); Amsterdam Ne 0.1; Antwerp Bel 0.1(0.1); Atina It (b); Barcelona Sp 3.1(0.1); Basle Switz 2.3(2.3); Baton Rouge USA 1.2(1.2); Berlin E Ge 1.3(0.2); Berlin W Ge 2.2(2.2); Bratislava Cz 1.1; Bristol GB 1.1(1.0); Brownsville USA 2.2(2.2); Catskill USA 0.1; Chicago Br USA 1.1(1.1); Chicago LP USA 1.2(0.2); Cleveland USA 1.2(0.1); Columbus USA 1.1(1.1); Dallas USA 1.2(0.1); Dvur Kralove Cz 2.3(2.3); Edinburgh GB 2.1(2.1); Gdansk Pol 1.1(1.1); Halle Ge 2.2(2.2); Hanover Ge 0.1; Hilo USA 1.2(1.2); Honolulu USA 1.2(1.2); Hoyerswerda Ge 1.1; Jackson USA 1.1(1.1); Jakarta Indon 1.0; Jihlava Cz 1.1(1.1); Kaliningrad USSR 2.2(2.2); Kaunas USSR 1.2(1.2); Krefeld Ge 1.1(1.1); Kristiansand Nor (b); Legal Can 0.1; Leipzig Ge 1.2(1.2); London ZSL GB 0.1; Madrid Sp 1.1(1.1); Marwell GB 1.1(1.1); Melbourne Austral 2.2(2.2); Miami MZ USA 0.1; Monrovia Lib 1.2; Morelia Mex 1.1(0.1); Munich Ge 2.3(2.3); Mysore Ind 0.1; Nagoya Jap 1.1(1.1); NY Bronx USA 1.4(1.3); Nuremberg Ge 1.1(1.1); Paris PZ Fr 0.1; Poznan Pol 2.3(1.3); Prague Cz 1.2(1.2); Pretoria SA 2.2(2.2); Rome It 2.1(2.0); Rostov USSR 1.1(1.0); Rotterdam Ne 1.2(1.2); St Louis USA 2.2(2.2); San Antonio USA 0.2(0.2); San Diego USA 2.1(1.1); San Diego WAP USA 0.2(0.2); San Francisco USA 1.0(1.0); San Jose USA 0.1(0.1); Seoul Kor 1.1; Singapore