Monitoring of Przewalski's horses and other plains ungulates in the Great Gobi B Strictly Protected Area in SW Mongolia in 2013

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Mogoi group; Photo: N. Altansukh

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1. Przewalski's horse population size

The Przewalski's horse population in the Great Gobi B SPA consisted of 90 animals in 6 harems and 2 bachelor groups at the end of December 2013 (Table 1).

Table 1: Przewalski's horse groups in Great Gobi B SPA by the end of December 2013.

Nr.	Sex	Name	ZB-Nr.	Birthdate	Origin	Dam	Sire	Group in December 2013
281	**stallion**	**Aptek**	**5161**	**01.06.08**	**Gobi B**	**3047**	**3055**	**Aptek**
144	mare	Zur	3301	06.06.99	Köln (D)/WPL	1022	1852	Aptek
146	mare	Shandas	3312	11.06.99	Ahaus (D)/WPL	2948	1852	Aptek
148	mare	Zolboo	3811	19.10.02	Stuttgart (D)	1767	2480	Aptek
152	mare	Tolbo	3807	30.06.02	Wien (A)	2173	2444	Aptek
153	mare	Nergui	3708	26.04.02	WPL	2018	2805	Aptek
154	mare	Mandhai	3730	13.05.02	Winterthur (CH)	1897	1742	Aptek
203	mare	Audi	4688	09.04.06	Gobi B	3047	3055	Aptek
204	mare	Altai	4690	16.04.06	Gobi B	3312	3055	Aptek
211	mare	Suvd	4778	30.05.06	Gobi B	3807	3055	Aptek
254	mare	Shuudan	5055	25.06.07	Gobi B	3807	3055	Aptek
292	mare	Surguuli	5190	01.07.08	Gobi B	3708	3055	Aptek
299	mare	Altaisayan	5201	15.07.08	Gobi B	3807	3055	Aptek
316	mare	Angarag	5470	21.05.09	Gobi B	3708	3055	Aptek
384	mare	Nergui's foal (Anar)	NA	22.06.13	Gobi B	3708	4856 or 3055	Aptek
187	**stallion**	**Azaa**	**4529**	**21.05.05**	**Gobi B**	**3230**	**3069**	**Azaa**
149	mare	Zuram	4234	02.06.02	Karlsruhe (D)	2638	2397	Azaa
170	mare	Huvhar	4383	06.06.04	Gobi B	2141	1818	Azaa
175	mare	Tsovoo	4398	16.06.04	Gobi B	2398	1818	Azaa
337	stallion	Mazaalai	5769	09.05.11	Gobi B	4234	4529	Azaa
339	stallion	Tsesen	5779	12.05.11	Gobi B	4398	4529	Azaa
358	mare	Bozlog	5951	27.04.12	Gobi B	4234	4529	Azaa
359	mare	Tsolog	5961	04.05.12	Gobi B	4398	4529	Azaa
360	stallion	Khanhohli	5962	04.05.12	Gobi B	4383	4529	Azaa
375	stallion	Zuram's foal (Soyombo)	NA	15.05.13	Gobi B	4234	4529	Azaa
377	mare	Tsovoo's foal (Irmuun)	NA	18.05.13	Gobi B	4398	4529	Azaa
380	mare	Huvhar's foal (Silvia)	NA	26.05.13	Gobi B	4383	4529	Azaa
238	**stallion**	**Erhes**	**4932**	**03.05.07**	**Tachin Tal**	**2786**	**2363**	**Erkhes**
353	mare	Tsagaanaa	5341	07.06.08	Doebritzer Heide	2958	2928	Erkhes
354	mare	Boroo	5372	03.05.09	Doebritzer Heide	2638	3852	Erkhes
355	mare	Bulgan	4943	05.05.07	Hutweide Lüneburg	2187	3107	Erkhes
356	mare	Alag	5719	01.06.09	Dobrejov, CZ	3251	2324	Erkhes
242	**stallion**	**Mogoi**	**4961**	**11.05.07**	**Tachin Tal**	**2586**	**2363**	**Mogoi**
388	mare	Baigali	4708	29.04.06	Hornbostl	2187	3107	Mogoi
389	mare	Tsakhan	4990	21.05.07	Hortobagy NP	3514	3283	Mogoi
390	mare	Bumbat	5384	12.05.09	Hortobagy NP	3514	3535	Mogoi
391	mare	Gunj	5499	21.05.09	Berlin TP	5487	2040	Mogoi

177	**stallion**	**Bundan**	**4404**	**02.07.04**	**Gobi B**	**3391**	**2911**	**Bundan / Sooton**
202	**stallion**	**Sooton**	**4593**	**08.10.05**	**Tachin Tal**	**2948**	**3055**	**Bundan / Sooton**
61	mare	Imj	2748	02.08.94	Schwerin	1436	1236	Bundan / Sooton
79	mare	Dorothee	3230	06.06.99	Tachin Tal	3035	2503	Bundan / Sooton
87	mare	Maral	3387	23.05.00	Tachin Tal	3038	2363	Bundan / Sooton
111	mare	Oroo	3755	24.05.02	Gobi B	2787	1818	Bundan / Sooton
132	mare	Saran	3823	09.04.03	Tachin Tal	2645	2363	Bundan / Sooton
183	mare	Buman	4503	29.04.05	Gobi B	2748	3069	Bundan / Sooton
208	mare	Khatan	4751	21.05.06	Gobi B	3230	3069	Bundan / Sooton
246	mare	Erhsaran	5017	03.06.07	Gobi B	3084	3166	Bundan / Sooton
275	mare	Setgel	5148	20.05.08	Gobi B	2948	2363	Bundan / Sooton
280	mare	Suld	5160	01.06.08	Gobi B	3823	3166	Bundan / Sooton
333	stallion	Huder	5753	04.05.11	Gobi B	3230	4404	Bundan / Sooton
343	mare	Emeelzeg	5835	27.05.11	Gobi B	4561	3717	Bundan / Sooton
344	stallion	Tanan	5866	14.06.11	Gobi B	4751	4404	Bundan / Sooton
357	mare	Salhich	5950	27.04.12	Gobi B	3755	4404	Bundan / Sooton
366	mare	Amgai	6038	13.06.12	Gobi B	3230	4404	Bundan / Sooton
367	mare	Argai	6045	16.06.12	Gobi B	3387	4404	Bundan / Sooton
368	stallion	Songuuli	6047	18.06.12	Gobi B	5017	4404	Bundan / Sooton
369	stallion	Oswald	6052	24.06.12	Gobi B	2748	4404	Bundan / Sooton
370	mare	Uranshuvuu	6058	05.07.12	Gobi B	3823	4404	Bundan / Sooton
373	stallion?	Buman's foal (Tolinhul)	NA	06.05.13	Gobi B	4503	4404? or 4593	Bundan / Sooton
381	stallion	Setgel's foal (Hors)	NA	01.06.13	Gobi B	5148	4404? or 4593	Bundan / Sooton
386	mare	Erhsaran's foal (Buyant)	NA	07.07.13	Gobi B	5017	4404?	Bundan / Sooton
387	mare?	Suld's foal (Soyolj)	NA	01.09.13	Gobi B	5160	4404?	Bundan / Sooton
106	**stallion**	**Nomkhon**	**3717**	**07.05.02**	**Gobi B**	**2141**	**1818**	**Nomkhon**
73	mare	Od	2645	23.04.94	Prag	1874	1135	Nomkhon
88	mare	Kherlen	3391	26.05.00	Tachin Tal	3035	2363	Nomkhon
112	mare	Mandal	3758	26.05.02	Gobi B	2940	2866	Nomkhon
197	mare	Holog	4561	30.06.05	Gobi B	2398	1818	Nomkhon
247	mare	Taniya	5018	30.06.07	Gobi B	4234	3361	Nomkhon
250	mare	Otgonbor	5038	15.06.07	Gobi B	2398	1818	Nomkhon
361	stallion	Tengeriinhuleg	5963	06.05.12	Gobi B	5038	3717	Nomkhon
363	mare	Huselt	6006	26.05.12	Gobi B	4561	3717	Nomkhon
364	stallion	Argamag	6011	27.05.12	Gobi B	2645	4404	Nomkhon
365	mare	Biger	6035	11.06.12	Gobi B	3758	3717	Nomkhon
372	stallion	Tanyia's foal (Dol)		28.04.13	Gobi B	5018	3717	Nomkhon
376	stallion	Kherlen's foal (Darhan)		16.05.13	Gobi B	3391	3717	Nomkhon
378	stallion	Otgonbor's foal (Bidert)		18.05.13	Gobi B	5038	3717	Nomkhon
382	mare	Mandal's foal (Myangalan)		16.06.13	Gobi B	3758	3717	Nomkhon
385	mare	Holog's foal (Hishigt)		24.06.13	Gobi B	4561	3717	Nomkhon

		Bachelors 1						
229	stallion	Shandast	4856	01.09.06	Gobi B	3301	3055	Bachelor 1
253	stallion	Khaan	5054	25.06.07	Gobi B	3312	3055	Bachelor 1
349	stallion	Khovd	4963	11.05.07	WHCB Jimsar China	1251	1662	Bachelor 1
351	stallion	Oidov	5094	06.09.07	WHCB Jimsar China	4107	3311	Bachelor 1
352	stallion	Chimbaa	5301	02.05.08	WHCB Jimsar China	3001	3015	Bachelor 1
		Bachelors 2						
166	stallion	Doroo	4356	27.05.04	Gobi B	3375	3066	Bachelor 2
185	stallion	Bars	4511	09.05.05	Gobi B	3430	3069	Bachelor 2
269	stallion	Ugalz	5120	05.05.08	Gobi B	3758	3750	Bachelor 2
331	stallion	Osokhoo	5504	14.08.10	Gobi B	4503	3166	Bachelor 2
340	stallion	Tamir	5782	13.05.11	Gobi B	3758	3717	Bachelor 2
341	stallion	Goyhaliun	5818	20.05.11	Gobi B	5018	3717	Bachelor 2
345	stallion	Handgai	5872	17.06.11	Gobi B	3391	3881	Bachelor 2

Between 28 April and 1 September 2013, 16 foals were born of which 13 have survived until the end of December. Three foals (Khatan's, Suvd's, and Altai's) died within the first 6 weeks after birth.

Adult survival has been excellent so far (no losses), although the fate of all stallions is not easy to follow any more: 1) Tumee's disappeared the end of February, but may be still alive as a lone Przewalski's horse stallion had been spotted by a soum ranger near Khavtag Mountain once in October, 2) Bars disappeared the end of December 2012, but reappeared again in July 2013.

2. Przewalski's horse space use

2.1. Ranger monitoring

Between January and December 2013, rangers located the different Prsewalski's horse groups on 196 different days. The animals are still separated in two distinct populations, one (2 harems and 1 bachelor group totaling 20 animals) in the west around Takhi us and one (4 harems and 1 bachelor group totaling 70 animals) in the east between Takhin Tal and Chonin Us. The western population covers an area of 428 km² and the eastern population an area of 2158 km² (Fig. 1).

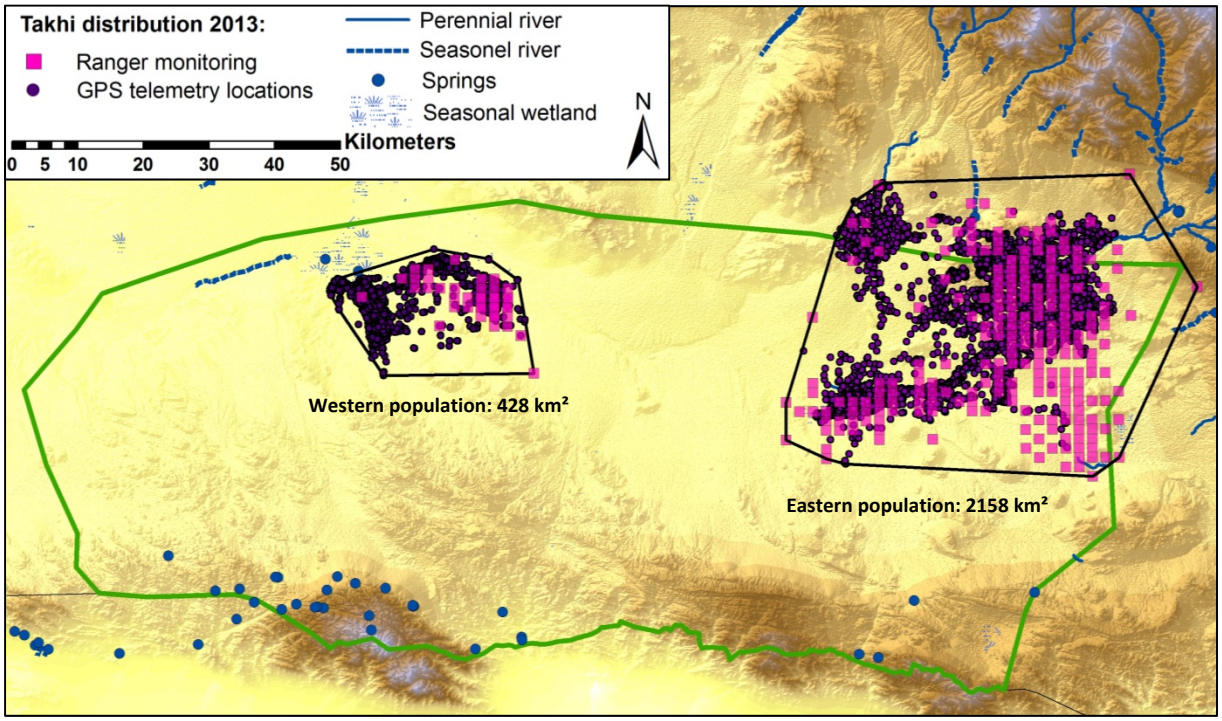


Fig. 1: Przewalski's horse population distribution in the Great Gobi B SPA, January-December 2013.

2.2. Iridium-GPS telemetry

In June we collared 5 Przewalski's horses from 3 different groups: Tsagaanaa and Boroo in Erhes group, Khatan in Bundan group, and the stallions Oidov and Khovd from the western Bachelor group (see report Kaczensky et al. 2013). Collars worked well except for Khovd's collar. To make matters worse the collar eventually also slipped over his ears and got stuck in this position (Fig. 2). Consequently, Nikolaus Huber a veterinarian and former Master student from the Research Institute of Wildlife Ecology, University of Veterinary Medicine, Vienna, went to the Great Gobi B SPA. Together with O. Ganbaatar and the rangers Klaus managed to dart Khovd over hay and remove the collar on 10 November. The collar had caused cuts and skin irritations, which were cleaned and treated by Klaus with antiseptics and antibiotics.

As it turned out the collar had collected GPS locations as expected, but failed to send them via the Iridium uplink. Engineers from the producing company Vectronic Aerospace suspect that about 5% of the first generation quartz crystal in the Iridium units leak helium gas, causing their frequency to wander, eventually resulting in poor to no Iridium reception (R. Schulte, Vectronic Aerospace, pers. comm. 2013).

Fig. 2: Stallion Khovd with Iridium-GPS collar which had slipped over the ears.
Photo: K. Huber

Despite these drawbacks, the collars have made monitoring the elusive stallion group at Takhi us, the highly mobile Bundan group and the newly released Erhes group (Fig. 3) much easier for the rangers. GPS locations can be publicly accessed via the internet interface: https://www.vectronic-wildlife.com/ in real-time using the following access codes: Database name*: tt_przewalski_horse*; User ID: *takhifriend*; Password: *takhifriend_2013*

Between June and December the collars collected 23,263 GPS locations on an hourly basis, very rarely missing any fix (99.5% success rate). Combining the ranger monitoring and the GPS telemetry data provides the ranges for the 8 Przewalski's horse groups in the Great Gobi B SPA (Fig. 3).

Fig. 3: Stallion Erhes with collared mares Tsagaanaa (yellow collar) and Boroo (black collar) – the identity of these two mares had been accidentally mixed up in the June 2013 report.
Photo: P. Kaczensky

Table 2: GPS fixes of 5 collared Przewalski's horses in Great Gobi B SPA June until December 2013.

Date	Oidov (6092)	Khatan (7209)	Khovd (7213)	Boroo (7215)	Tsagaanaa (13155)	Total	Missed GPS fixes
07.06.2013				21		21	0
08.06.2013		20		24		44	0
09.06.2013		24		24		48	0
10.06.2013	22	24	20	24		90	0
11.06.2013	24	24	24	24		96	0
12.06.2013	24	24	24	24		96	0
13.06.2013	24	24	24	24	14	110	0
14.06.2013	24	24	24	24	24	120	0
15.06.2013	24	24	24	24	24	120	0
16.06.2013	24	23	24	24	24	119	1
17.06.2013	24	24	24	24	24	120	0
18.06.2013	24	24	24	24	24	120	0
19.06.2013	24	24	24	14	24	110	10
20.06.2013	24	24	24	24	24	120	0
21.06.2013	24	24	24	24	24	120	0
22.06.2013	24	24	24	24	24	120	0
23.06.2013	24	24	24	23	24	119	1
24.06.2013	24	24	24	24	24	120	0
25.06.2013	24	24	24	24	24	120	0
26.06.2013	24	23	24	24	24	119	1
27.06.2013	24	24	24	24	24	120	0
28.06.2013	24	23	24	24	24	119	1
29.06.2013	23	23	24	23	24	117	3
30.06.2013	24	23	24	24	24	119	1
01.07.2013	24	24	24	24	23	119	1
02.07.2013	24	24	24	23	24	119	1
03.07.2013	24	24	24	24	24	120	0
04.07.2013	24	23	24	24	23	118	2
05.07.2013	24	23	24	24	24	119	1
06.07.2013	24	24	24	24	24	120	0
07.07.2013	24	24	24	24	24	120	0
08.07.2013	24	24	24	23	24	119	1
09.07.2013	24	24	24	23	24	119	1
10.07.2013	24	24	24	24	24	120	0
11.07.2013	24	24	24	23	24	119	1
12.07.2013	24	24	24	24	24	120	0
13.07.2013	24	24	24	23	24	119	1
14.07.2013	24	23	24	22	24	117	3
15.07.2013	24	24	24	23	24	119	1
16.07.2013	24	24	24	24	24	120	0
17.07.2013	24	24	24	24	24	120	0
18.07.2013	24	24	24	24	24	120	0
19.07.2013	24	24	24	24	23	119	1
20.07.2013	24	24	24	24	23	119	1
21.07.2013	24	24	24	24	24	120	0
22.07.2013	24	23	24	24	24	119	1
23.07.2013	24	24	24	24	24	120	0
24.07.2013	24	24	24	24	24	120	0
25.07.2013	24	24	24	24	24	120	0
26.07.2013	24	24	24	24	24	120	0
27.07.2013	24	24	24	24	24	120	0
28.07.2013	24	24	24	24	24	120	0
29.07.2013	24	24	24	24	24	120	0
30.07.2013	24	24	24	23	23	118	2
31.07.2013	24	24	24	24	24	120	0
01.08.2013	24	24	24	24	24	120	0
02.08.2013	24	24	24	24	24	120	0
03.08.2013	24	24	24	24	24	120	0
04.08.2013	22	24	23	24	23	116	4
05.08.2013	24	24	24	24	24	120	0
06.08.2013	24	24	24	24	24	120	0
07.08.2013	24	24	24	20	23	115	5
08.08.2013	24	24	24	24	24	120	0
09.08.2013	24	24	24	24	24	120	0
10.08.2013	24	24	24	24	24	120	0
11.08.2013	24	24	24	24	24	120	0
12.08.2013	24	24	24	24	24	120	0
13.08.2013	24	24	24	24	24	120	0
14.08.2013	24	24	24	24	24	120	0
15.08.2013	24	24	24	24	24	120	0
16.08.2013	24	24	24	24	24	120	0
17.08.2013	24	24	24	24	24	120	0
18.08.2013	24	24	24	24	24	120	0
19.08.2013	24	24	24	24	24	120	0
20.08.2013	24	24	24	24	24	120	0
21.08.2013	24	24	24	24	24	120	0
22.08.2013	24	24	24	24	24	120	0
23.08.2013	24	24	24	24	24	120	0
24.08.2013	24	24	24	24	24	120	0
25.08.2013	24	24	24	24	24	120	0
26.08.2013	24	24	24	24	24	120	0
27.08.2013	24	24	24	24	24	120	0
28.08.2013	24	24	24	24	24	120	0
29.08.2013	24	24	24	24	24	120	0
30.08.2013	24	24	24	24	23	119	1
31.08.2013	24	24	24	24	24	120	0

01.09.2013	24	24	24	24	24	120	0
02.09.2013	24	24	24	24	24	120	0
03.09.2013	24	24	24	24	24	120	0
04.09.2013	24	24	24	24	24	120	0
05.09.2013	24	24	24	24	24	120	0
06.09.2013	24	24	24	24	24	120	0
07.09.2013	24	24	24	24	24	120	0
08.09.2013	24	24	24	24	24	120	0
09.09.2013	24	24	24	24	24	120	0
10.09.2013	24	24	24	24	24	120	0
11.09.2013	24	24	24	24	24	120	0
12.09.2013	24	24	24	24	24	120	0
13.09.2013	24	24	24	24	24	120	0
14.09.2013	24	24	24	24	24	120	0
15.09.2013	24	24	24	24	24	120	0
16.09.2013	24	24	24	24	24	120	0
17.09.2013	24	24	24	24	24	120	0
18.09.2013	24	24	24	24	23	119	1
19.09.2013	24	24	24	24	24	120	0
20.09.2013	24	24	24	24	24	120	0
21.09.2013	24	24	24	24	24	120	0
22.09.2013	24	24	24	24	23	119	1
23.09.2013	24	24	24	24	24	120	0
24.09.2013	24	24	24	24	24	120	0
25.09.2013	24	24	24	23	24	119	1
26.09.2013	24	24	24	24	24	120	0
27.09.2013	24	24	24	24	24	120	0
28.09.2013	24	24	24	24	24	120	0
29.09.2013	24	24	24	24	24	120	0
30.09.2013	24	24	24	24	24	120	0
01.10.2013	24	24	24	24	24	120	0
02.10.2013	24	24	24	24	24	120	0
03.10.2013	24	24	24	24	24	120	0
04.10.2013	24	24	24	24	24	120	0
05.10.2013	24	24	24	24	24	120	0
06.10.2013	24	24	24	24	24	120	0
07.10.2013	24	24	24	24	24	120	0
08.10.2013	24	24	24	24	24	120	0
09.10.2013	24	24	24	24	24	120	0
10.10.2013	24	24	24	24	24	120	0
11.10.2013	24	24	24	24	24	120	0
12.10.2013	24	24	24	24	24	120	0
13.10.2013	24	24	24	24	24	120	0
14.10.2013	24	24	24	24	23	119	1
15.10.2013	24	24	24	24	24	120	0
16.10.2013	24	24	24	24	24	120	0
17.10.2013	24	24	24	24	24	120	0
18.10.2013	24	23	23	24	24	118	2
19.10.2013	24	24	24	24	24	120	0
20.10.2013	24	24	24	24	24	120	0
21.10.2013	24	24	24	24	23	119	1
22.10.2013	24	24	24	24	24	120	0
23.10.2013	24	24	24	24	24	120	0
24.10.2013	24	24	24	24	24	120	0
25.10.2013	15	24	24	24	24	111	9
26.10.2013	19	24	24	24	24	115	5
27.10.2013	24	24	24	24	23	119	1
28.10.2013	24	24	24	24	24	120	0
29.10.2013	24	24	24	24	24	120	0
30.10.2013	24	24	24	24	23	119	1
31.10.2013	24	24	24	24	24	120	0
01.11.2013	24	24	24	24	24	120	0
02.11.2013	24	24	24	24	24	120	0
03.11.2013	24	24	24	24	24	120	0
04.11.2013	24	24	24	24	23	119	1
05.11.2013	24	24	24	24	24	120	0
06.11.2013	24	24	24	24	24	120	0
07.11.2013	24	24	24	24	23	119	1
08.11.2013	24	24	24	24	23	119	1
09.11.2013	24	24	24	24	24	120	0
10.11.2013	24	24	7	24	24	103	0
11.11.2013	24	24		23	24	95	1
12.11.2013	24	24		24	24	96	0
13.11.2013	23	24		24	24	95	1
14.11.2013	24	24		24	24	96	0
15.11.2013	24	24		24	24	96	0
16.11.2013	24	24		24	24	96	0
17.11.2013	24	24		24	23	95	1
18.11.2013	24	24		24	24	96	0
19.11.2013	24	24		24	24	96	0
20.11.2013	24	24		24	24	96	0
21.11.2013	24	24		24	24	96	0
22.11.2013	24	24		24	24	96	0
23.11.2013	24	24		24	24	96	0
24.11.2013	24	24		23	24	95	1
25.11.2013	23	24		24	24	95	1

26.11.2013	24	24		23	24	95	1
27.11.2013	24	24		23	24	95	1
28.11.2013	24	24		24	24	96	0
29.11.2013	24	24		23	24	95	1
30.11.2013	24	24		24	24	96	0
01.12.2013	24	24		24	24	96	0
02.12.2013	24	24		24	24	96	0
03.12.2013	24	24		24	24	96	0
04.12.2013	24	23		21	16	84	12
05.12.2013	24	24		16	22	86	10
06.12.2013	24	24		24	24	96	0
07.12.2013	24	24		23	23	94	2
08.12.2013	23	24		23	24	94	2
09.12.2013	24	24		22	24	94	2
10.12.2013	24	24		23	24	95	1
11.12.2013	24	24		24	24	96	0
12.12.2013	24	24		23	24	95	1
13.12.2013	24	24		24	24	96	0
14.12.2013	24	24		23	24	95	1
15.12.2013	24	23		24	24	95	1
16.12.2013	24	24		23	24	95	1
17.12.2013	24	24		23	24	95	1
18.12.2013	24	24		23	24	95	1
19.12.2013	23	24		24	24	95	1
20.12.2013	24	24		24	24	96	0
21.12.2013	24	24		24	24	96	0
22.12.2013	24	24		23	24	95	1
23.12.2013	24	24		24	24	96	0
24.12.2013	24	24		24	24	96	0
25.12.2013	23	24		24	24	95	1
26.12.2013	24	24		24	24	96	0
27.12.2013	24	24		23	24	95	1
28.12.2013	24	24		23	24	95	1
29.12.2013	24	24		23	24	95	1
30.12.2013	24	24		24	24	96	0
31.12.2013	24	24		24	24	96	0
Total	**4896**	**4952**	**3673**	**4933**	**4809**	**23263**	**121**

Grey cells = start / end of monitoring
Yellow cells = missed GPS positions

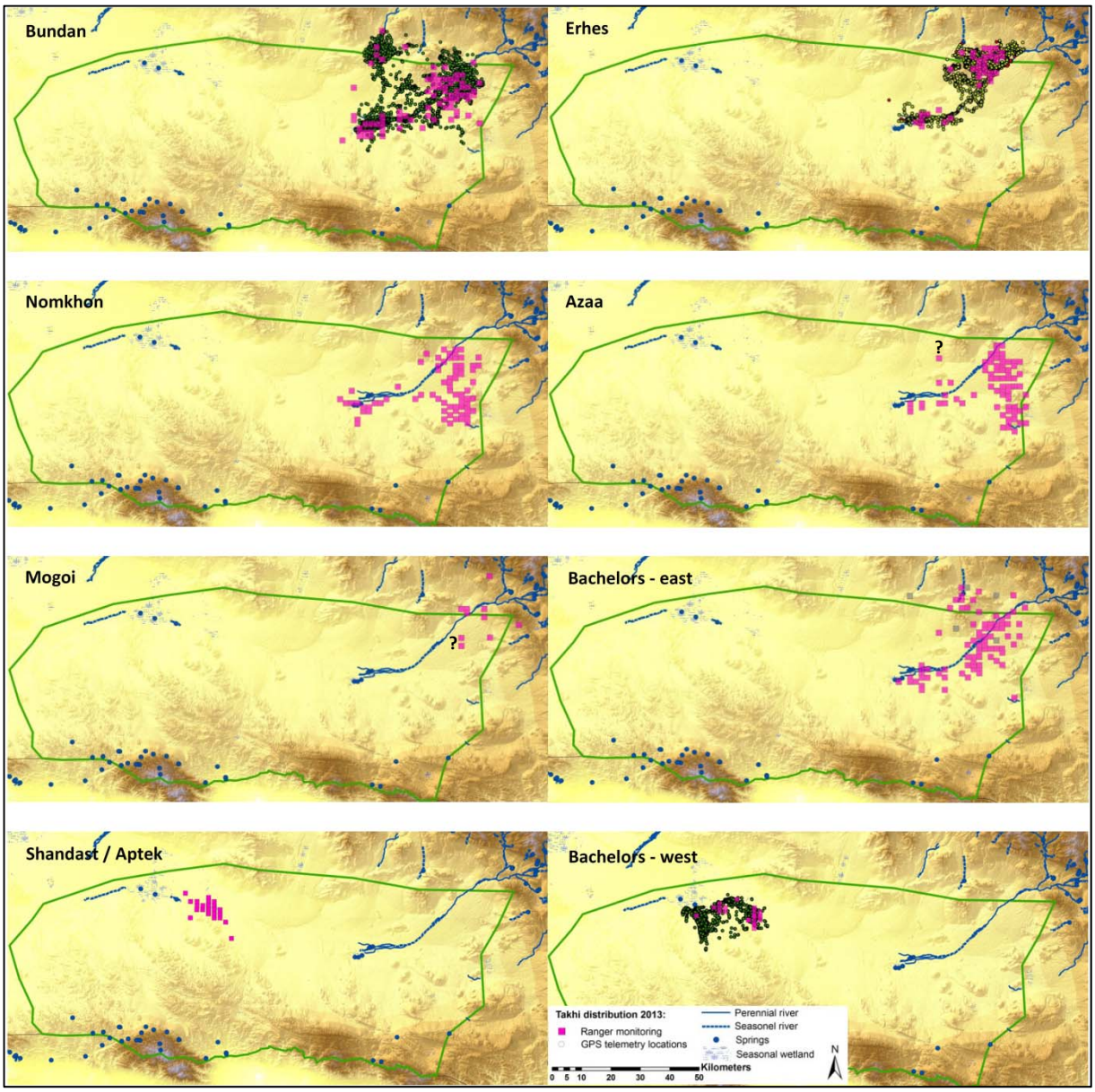
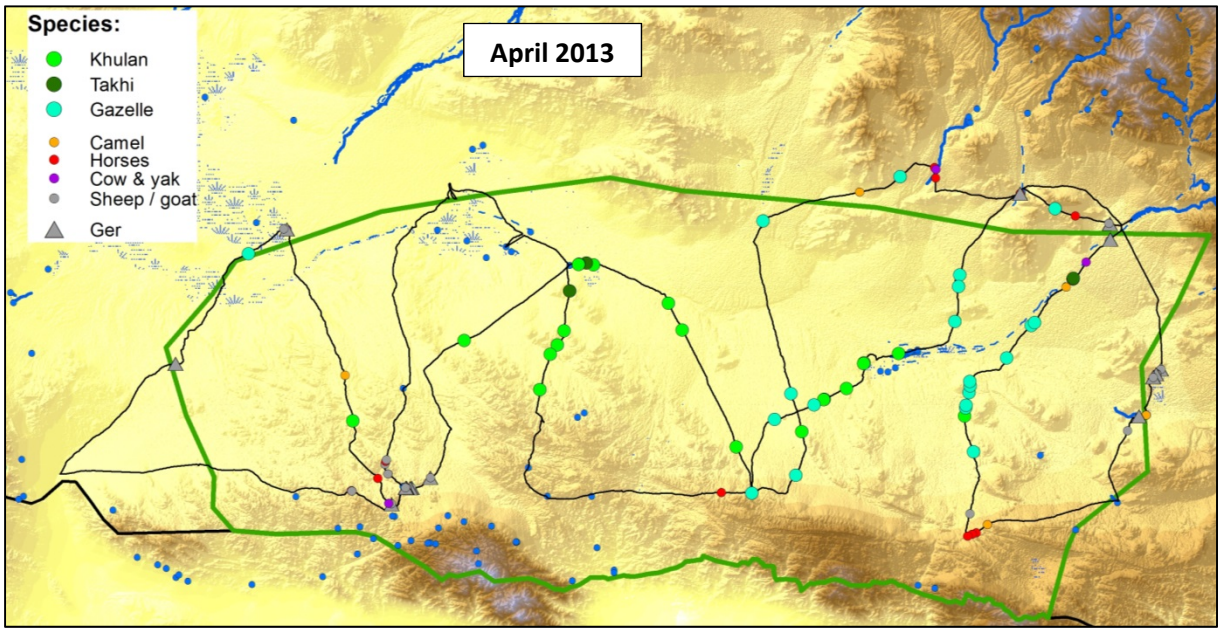
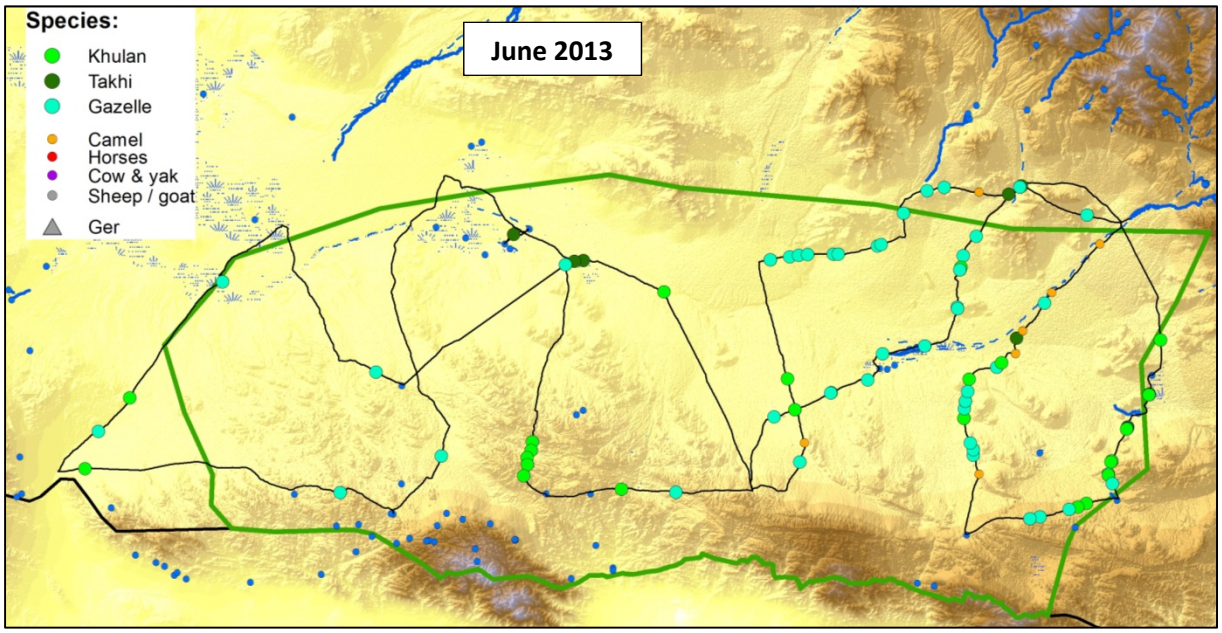


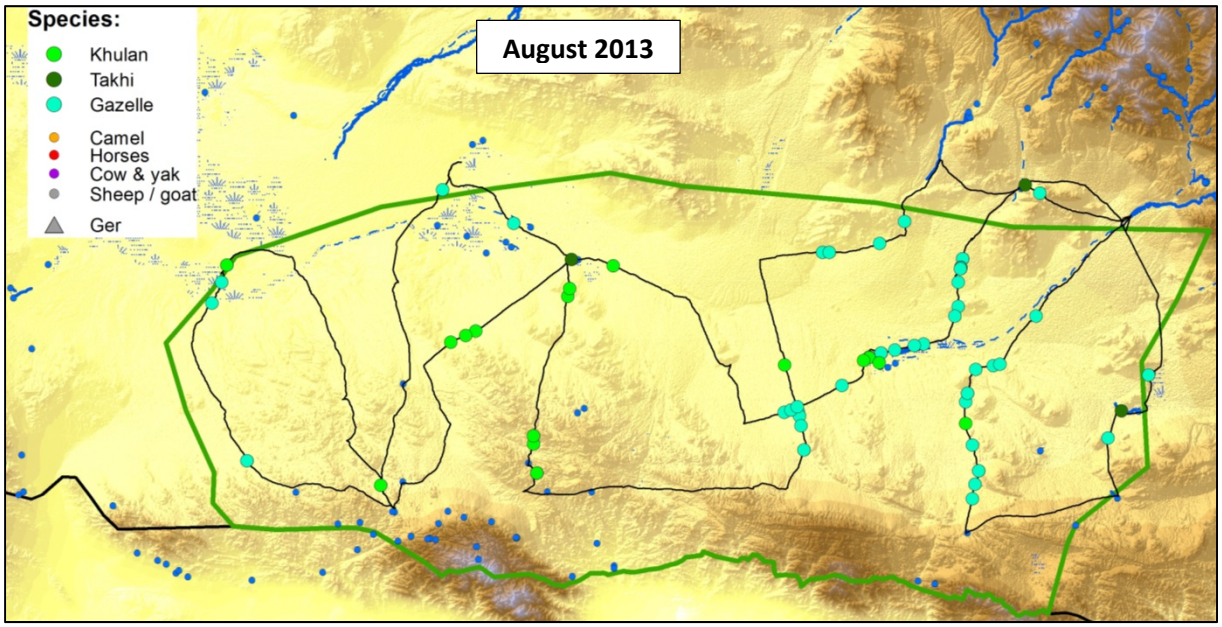
Fig. 3: Ranges of individual Przewalski's horse groups in Great Gobi B SPA in 2013.
? = positions that need double-checking and may be wrong
[Mogoi group, consisting of four mares that arrived in on 2 July 2013, had been briefly released from the adaptation enclosure due to the lack of water in the Bij river, but headed for the mountains and were thus subsequently herded back to the adaptation enclosure and provided with water via a trough until water again became available]

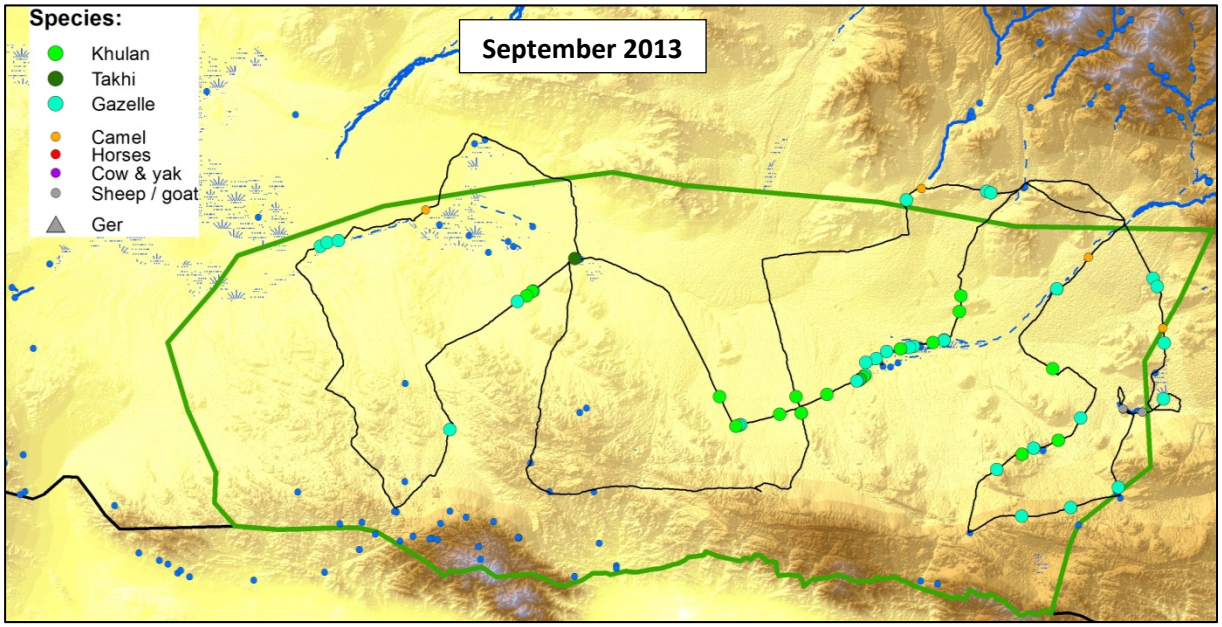
2. Steppe ungulate monitoring

Great Gobi B SPA staff conducted 6 wildlife monitoring surveys in April, June, August, September, October, and December 2013 (Fig. 4; Table 3). From October on surveys were conducted simultaneously by two teams, one in the east (starting from Takhin Tal research station) and one in the west (starting from Takhi us).






Species:
Khulan
Takhi
Gazelle
Camel
Horses
Cow & yak
Sheep / goat
Ger
August 2013


Species:
Khulan
Takhi
Gazelle
Camel
Horses
Cow & yak
Sheep / goat
Ger
September 2013

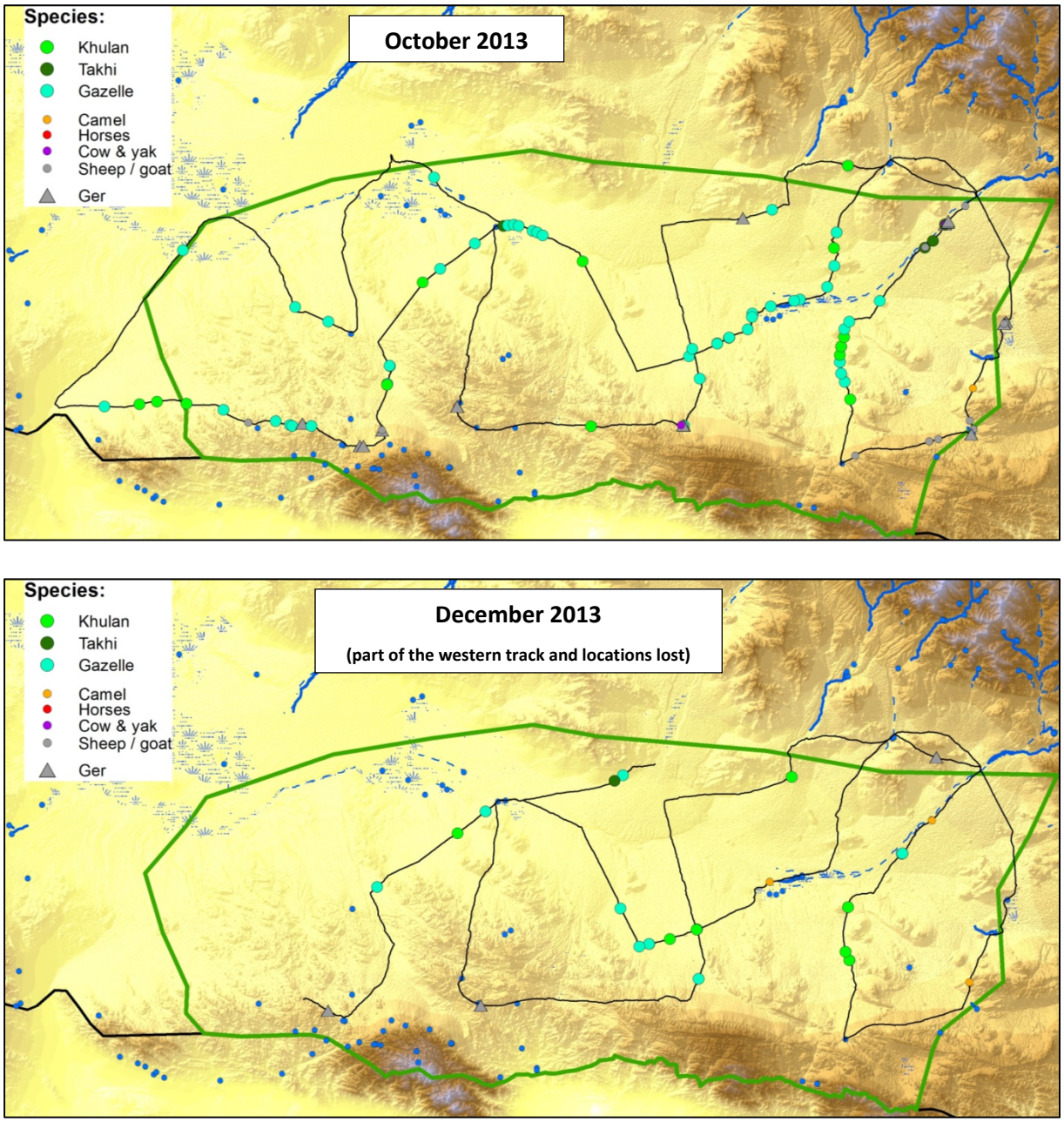


Fig. 4: Location of steppe ungulates and livestock during 6 wildlife surveys in Great Gobi B SPA between April and December 2013.

Table 3: Overview of wild and domestic ungulates encountered during the 6 surveys in Great Gobi B SPA from April – December 2013. ***!!!THIS IS RAW DATA – NOT POPULATION ESTIMATES!!!!***

Survey period		Wild ungulates			Domestic ungulates			
Start	End	Khulan	Gazelles	Takhi	Horses	Camels	Sheep / goat	Cow & Yak
14.04.2013	17.04.2013	977	133	48	195	110	10,381	94
15.06.2013	17.06.2013	352	151	24	0	122	0	0
12.08.2013	15.08.2013	18	50	4	0	4	1	0
15.09.2013	17.09.2013	642	176	15	105	61	1,150	23
20.10.2013	22.10.2013	150	368	77	138	55	9,950	87
27.12.2013	30.12.2013	795	207	15	147	50	4,600	0

Acknowledgements

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Special observation during ranger monitoring on 10 December 2013: Eurasian lynx (*Lynx lynx*).
Photo: Z. Baast