

Table 1. WGS IGV links for Cetartiodactyla species mapped to cattle<sup>a</sup>

Taxa	Common name	Species	Mapped to bovine UMD3.1		Estimated <sup>c</sup> read coverage	GB >Q20 <sup>d</sup>	Breed/type	Tissue source/location	Data source	Source ID	Sex	USMARC animal ID
			Public links <sup>b</sup>	.bam file								
	Yak (YA)	<i>Bos grunniens</i>	<a href="#">View in IGV</a>	7664470808	20	61.7	Domestic	North America <sup>e</sup>	USMARC	Queen Allante	F	201027018
	Yak	<i>Bos grunniens</i>	<a href="#">View in IGV</a>	7646266989	60	- <sup>f</sup>	Domestic	China <sup>g</sup>	GenBank	-	F	BGI
	<b>YA, 2 genomes</b>		<a href="#">View in IGV</a>	-	80	-	-	-	-	-	-	-
	Gaur (GA)	<i>Bos gaurus</i>	<a href="#">View in IGV</a>	7686216445	10	40.3	Wild	Henry Doorly Zoo <sup>h</sup>	USMARC	5443	F	199911001
	Gaur	<i>Bos gaurus</i>	<a href="#">View in IGV</a>	7686216446	10	41.1	Wild	Henry Doorly Zoo <sup>h</sup>	USMARC	5681	F	199911002
	<b>GA, 2 genomes</b>		<a href="#">View in IGV</a>	-	20	-	-	-	-	-	-	-
	<b>YA and GA, 4 genomes</b>		<a href="#">View in IGV</a>	-	100	-	-	-	-	-	-	-
	Banteng	<i>Bos javanicus</i>	<a href="#">View in IGV</a>	7686220006	14	58.3	Wild	San Diego Zoo <sup>i</sup>	USMARC	KB3281	M	200710001
	Banteng	<i>Bos javanicus</i>	<a href="#">View in IGV</a>	7686219993	14	58.4	Wild	San Diego Zoo <sup>i</sup>	USMARC	OR206	F	200710002
	<b>Banteng (BA), 2 genomes</b>		<a href="#">View in IGV</a>	-	28	-	-	-	-	-	-	-
	<b>YA, GA, and BA, 6 genomes</b>		<a href="#">View in IGV</a>	-	128	-	-	-	-	-	-	-
	Plains bison	<i>Bison bison</i>	<a href="#">View in IGV</a>	7686220032	15	50.0	Wild	Nebraska <sup>j</sup>	USMARC	130	M	199912001
	Plains bison	<i>Bison bison</i>	<a href="#">View in IGV</a>	7918641088	14	45.9	Wild	Nebraska <sup>j</sup>	USMARC	71	M	199912003
	<b>Plains bison (BI), 2 genomes</b>		<a href="#">View in IGV</a>	-	29	-	-	-	-	-	-	-
	<b>YA, GA, BA, and BI, 8 genomes</b>		<a href="#">View in IGV</a>	-	157	-	-	-	-	-	-	-
	Water buffalo (WA)	<i>Bubalis bubalus</i>	<a href="#">View in IGV</a>	7646550207	20	-	Domestic	Italy <sup>k</sup>	GenBank	-	F	Murrah
	<b>YA, GA, BA, BI, and WB, 8 genomes</b>		<a href="#">View in IGV</a>	-	160	-	-	-	-	-	-	-
	Cape buffalo (CA)	<i>Syncerus caffer</i>	<i>In progress</i>	-	-	-	Wild	Tanzania <sup>l</sup>	USMARC	-	M	200778004
	Eland (EL)	<i>Taurotragus oryx</i>	<a href="#">View in IGV</a>	7646551732	10	38.8	Wild	South Africa <sup>l</sup>	USMARC	-	M	201162012
	<b>YA, GA, BA, BI, WB, and EL, 9 genomes</b>		<a href="#">View in IGV</a>	-	170	-	-	-	-	-	-	-
	Nilgai (NI)	<i>Boselaphus tragocamelus</i>	<i>In progress</i>	-	-	-	Wild	Texas <sup>m</sup>	USMARC	-	F	200726007
	Sheep (SH)	<i>Ovis aries</i>	<a href="#">View in IGV</a>	7595612569	10	-	Domestic	USMARC	USMARC	-	M	200008100
	Goat (GO)	<i>Capra hircus</i>	<a href="#">View in IGV</a>	7646530953	40	-	Domestic	China <sup>n</sup>	GenBank	-	F	Yunnan black
	<b>YA, GA, WB, EL, SH, and GO, 8 genomes</b>		<a href="#">View in IGV</a>	-	-	-	-	-	-	-	-	-
	Moose (MO)	<i>Alces americanus</i>	<a href="#">View in IGV</a>	7762078577	16	64.1	Wild	Paxson, AK <sup>o</sup>	USMARC	HM2013	M	201524011
	Moose	<i>Alces americanus</i>	<a href="#">View in IGV</a>	7762078616	16	66.8	Wild	Elk River, Id <sup>q</sup>	USMARC	Clearwater06	M	Clearwater06
	Moose	<i>Alces americanus</i>	<a href="#">View in IGV</a>	7762078590	11	45.7	Wild	Grn. Riv. Lakes, WY <sup>o</sup>	USMARC	JC2001	F	200124009
	Moose	<i>Alces americanus</i>	<a href="#">View in IGV</a>	7762078603	19	77.3	Wild	Lowell, Vt <sup>p</sup>	USMARC	R199	M	R199
	<b>MO, 4 genomes</b>		<a href="#">View in IGV</a>	-	63	-	-	-	-	-	-	-
	Minke whale (MI)	<i>Balaenoptera acutorostrata</i>	<a href="#">View in IGV</a>	7646533915	30	-	Wild	Korea <sup>r</sup>	GenBank	-	M	Whale
	<b>YA, GA, WB, EL, SH, GO, and MI, 9 genomes</b>		<a href="#">View in IGV</a>	-	-	-	-	-	-	-	-	-



<sup>a</sup>These hyperlinks to USMARC whole genome sequence (WGS) data are from an ARS Specific Cooperative Agreement with Intrepid Bioinformatics in collaboration with the University of Louisville.

<sup>b</sup>For questions or comments about progress and access to the data, please contact Mike Heaton or Ted Kalbfleisch at [mike.heaton@ars.usda.gov](mailto:mike.heaton@ars.usda.gov) or [ted.kalbfleisch@louisville.edu](mailto:ted.kalbfleisch@louisville.edu), respectively.

<sup>c</sup>The hypothetical estimated read coverage if the reads were mapped to a reference genome of the same species.

<sup>d</sup>Total gigabases of genomic sequence with a quality score greater than or equal to 20. Tru-Seq paired-end libraries were sequenced with NextSeq500 high-output kits (300 cycles, Illumina Inc. San Diego CA).

<sup>e</sup>Hide sample provided by the International Yak Association from founding female Queen Allante D171 after she died of natural causes.

<sup>f</sup><http://www.iyak.org/main.html>

<sup>g</sup>Not available or not applicable.

<sup>h</sup>The Huangyuan County of Qinghai Province.

<sup>i</sup>[Qui et al. 2012, Nature Genetics 44:946-949](http://www.sandiegozoo.org/conservation/conservation-genetics/)

<sup>j</sup>White blood cell samples were collected from two female gaur in collaboration with Drs. D. Armstrong and E. Louis at Omaha's Henry Doorly Zoo.

<sup>k</sup><http://www.omahazoo.com/conservation/conservation-genetics/>

<sup>l</sup>DNA samples provided by the San Diego Zoo's Beckman Center for Conservation Research.

<sup>m</sup>[http://www.sandiegozoo.org/icr/beckman\\_center](http://www.sandiegozoo.org/icr/beckman_center)

<sup>n</sup>USMARC sample obtained from private sources after being processed in an abattoir during USDA inspection. Animal 199912001 was born and raised in a private bison herd in central Nebraska. Animal 199912003 was purchased at auction from the U.S. Fish & Wildlife Service's Fort Niobrara/Valentine National Wildlife Refuge in Nebraska, and raised in southeast Nebraska.

<sup>o</sup>[Water buffalo genome project](#)

<sup>p</sup>USMARC sample obtained from private sources after being legally imported as preserved hide.

<sup>q</sup>USMARC sample obtained from private sources after being field harvested and processed under full USDA-inspection.

<sup>r</sup>Yunnan black domestic goat.

<sup>s</sup>[Dong et al. 2013, Nature Biotechnology 31:135-141](http://www.sandiegozoo.org/icr/beckman_center)

<sup>t</sup>USMARC sample obtained voluntarily from U.S citizens after being lawfully taken during a State-approved legal hunt.

<sup>u</sup>Provided and curated by Dr. Stephanie McKay, Department of Animal & Veterinary Sciences, University of Vermont.

<sup>v</sup>Provided and curated by Dr. Brenda Murdoch, Animal and Veterinary Science, University of Idaho.

<sup>w</sup>East coast of Korea.

<sup>x</sup>[Yim et al. 2014, Nature Genetics 46:88-92](http://www.sandiegozoo.org/icr/beckman_center)

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