

Supplementary Tab. 1 - Most important fossil hominins counting with craniofacial and/or costo-vertebral remains suitable for the study of respiratory system evolution.

CLASSIFICATION	ID	SPECIES	ORIGIN (COUNTRY)	DATATION	GEOLOGIC TIMESCALE	CRANIOFACIAL	RIBS	VERTEBRAE
Basal hominins	TM 266-01-060-14 (Toumai)	<i>Sahelanthropus tchadensis</i>	Chad	~6-7 my.	Messinian Miocene	Yes, complete	No	No
	ARA-VP-6/500 (Ardi)	<i>Ardipithecus ramidus</i>	Ethiopia	~4.4 my.	Zanclean Pliocene	Yes, incomplete	Yes, incomplete	Yes, incomplete
Group 1	KNM-KP 29281 MRD-VP-1/1	<i>Australopithecus anamensis</i>	Kenya Ethiopia	~4.1 my. ~3.8 my.	Zanclean Pliocene	Yes, incomplete Yes, complete	No No	No No
	KSD-VP-1/1 (Kadanuumuu) DIK-1-1 (Selam)* AL 288-1 (Lucy) AL 200-1 AL 444-2 KT 12 (Abel)	<i>Australopithecus afarensis</i>	Ethiopia	~3.58 my. ~3.3 my. ~3.2 my. ~3-3.2 my. ~3 my.	Piacenzian Pliocene	No Yes, complete Yes, incomplete Yes, incomplete Yes, incomplete	Yes, incomplete No Yes, incomplete No	Yes, incomplete No Yes, incomplete No
	KNM WT 40000 StW 573 (Little Foot)	<i>Australopithecus bahrelghazali</i> <i>Kenyanthropus platyops</i>	Chad Kenya	~3.58 my. ~3.5 my.		Yes, incomplete Yes, incomplete	No No	No No
	STS 5 (Mrs. Ples) Taung 1 (Taung Child)*	<i>Australopithecus sp. (africanus / prometheus)</i> <i>Australopithecus africanus</i>	South Africa South Africa	~3.3 my. ~3.4-3.7 my. ~2.6 - 2.8 my.		Yes, complete Yes, complete	Yes, fairly complete No No	Yes, fairly complete No No
	STS 14* STS 71 StW 13 StW 505 (Mr. Ples) STS 52 STS 60	<i>Australopithecus africanus</i>	South Africa	~2.5 my. ~2.4-2.8 my. ~2.4-2.8 my. ~2.01 - 2.65 my. ~2.4 my. ~2.04 - 3.03 my.	Gelasian Pleistocene	No Yes, incomplete Yes, complete Yes, incomplete Yes, incomplete Yes, incomplete	Yes, incomplete No No No No No	Yes, incomplete No No No No No
	BOU-VP-12/130 (Bouri) KNM-WT 17000 (Black Skull) TM 1517 DNH 7 (Eurydice)	<i>Australopithecus garhi</i> <i>Paranthropus aethiopicus</i> <i>Paranthropus robustus</i>	Ethiopia Kenya South Africa	~2.5 my. ~2.5 my. ~2 my. ~1.95 - 2.04 my.		Yes, incomplete Yes, complete Yes, incomplete Yes, incomplete	No No No No	No No No No
	KNM-ER 1470 (Rudy) KNM-ER 62000	<i>Homo rudolfensis</i>	Kenya	~1.9 my. ~1.78-1.9 my.		Yes, incomplete Yes, incomplete	No No	No No
	SK 46 SK 48	<i>Paranthropus robustus</i>	South Africa	~1.5-2 my. ~1.5-2 my.	Calabrian Pleistocene	Yes, incomplete Yes, incomplete	No No	No No
	KNM-WT 17400 KNM-ER 406 KNM-ER 732 OH 5 (Nutcracker Man) KGA 10-525 (Konso) MH1 (Karabo)	<i>Paranthropus boisei</i>	Kenya Kenya Kenya Tanzania Ethiopia	~1.77 my. ~1.7 my. ~1.7 my. ~1.75 my. ~1.4 my.		Yes, complete Yes, complete Yes, incomplete Yes, incomplete Yes, incomplete	No No No No No	No No No No No
	MH2 OH 24 (Twiggy) OH 62 (Dik-Dik) OH 13 (Cinderella) KNM-ER 1813 KNM-ER 1805	<i>Australopithecus sediba</i> <i>Homo habilis</i>	South Africa Tanzania Tanzania Tanzania Kenya Kenya	~1.78-1.95 my. ~1.78-1.95 my. ~1.8 my. ~1.8 my. ~1.7 my. ~1.78 my. ~1.74 my.		Yes, complete Yes, complete Yes, incomplete Yes, incomplete Yes, incomplete Yes, incomplete Yes, incomplete	No No No No No No No	No No No No No No No
	StW 53 SK 847	<i>Homo habilis</i> s.l. (<i>gautengensis</i>) <i>Homo habilis</i> s.l.	South Africa South Africa	~1.5-2 my. ~1.5-1.8 my.		Yes, incomplete Yes, incomplete	No No	No No
	LES1 Dinaledi hominins*	<i>Homo naledi</i>	South Africa	~335 ky. ~335 ky.	Chibanian Pleistocene	Yes, incomplete Yes, incomplete	Yes, incomplete Yes, commingled	Yes, incomplete Yes, commingled
Group 2	Dmanisi hominins* KNM-ER 3733 KNM-WT 15000 (Nariokotome Boy)* KNM-ER 3883 Buia UA31 (Madam Buya)	<i>Homo georgicus</i> <i>Homo ergaster</i>	Georgia Kenya Kenya Kenya Eritrea	~1.77 my. ~1.7 my. ~1.6 my. ~1,5-1,65 my. ~1 my.	Calabrian Pleistocene	Yes, incomplete Yes, incomplete Yes, incomplete Yes, incomplete Yes, incomplete	Yes, commingled No Yes, incomplete No No	Yes, commingled No Yes, incomplete No No
	Sangiran 4 Sangiran 17 LB 1	<i>Homo erectus</i> <i>Homo floresiensis</i>	Indonesia Indonesia	~800 ky. ~800 ky. ~60 ky.		Yes, incomplete Yes, incomplete Yes, complete	No No No	No No Yes, commingled
	ATD6 hominins*	<i>Homo antecessor</i>	Spain	~900 ky.	Calabrian Pleistocene	Yes, commingled	Yes, commingled	Yes, commingled

Group 3	Bodo 1	<i>Homo rhodesiensis</i>	Ethiopia	~600 ky.	Chibanian Pleistocene	Yes, incomplete	No	No
	Ndutu		Tanzania	~400 ky.		Yes, incomplete	No	No
	Florissbad Skull		South Africa	~260 ky.		Yes, complete	No	No
	KNM-ES 11693		Kenya	~250 ky.		Yes, incomplete	No	No
	Broken Hill 1/Kabwe 1 (Rhodesian Man)		South Africa	~125-300 ky.		Yes, incomplete	No	No
	Arago hominins	<i>Homo heidelbergensis</i>	France	~450 ky.		Yes, incomplete	Yes, commingled	Yes, commingled
	Steinheim 1		Germany	~300 ky.		Yes, incomplete	No	No
	Petralona 1		Greece	~150-350 ky.		Yes, complete	No	No
	Cráneo 5 (Miguelón)	<i>Homo sp. (pre-Neanderthal)</i>	Spain	~430 ky.		Yes, complete	No	No
	Sima de los Huesos hominins		Spain	~430 ky.		Yes, complete	Yes, commingled	Yes, commingled
	Dali cranium	<i>Homo sp. (erectus/heidelbergensis)</i>	China	~300 ky.		Yes, complete	No	No
	Derderiyeh 1*		Siria	~240-130 ky.		Yes, fairly complete	Yes, fairly complete	Yes, fairly complete
	Derderiyeh 2*	<i>Homo neanderthalensis</i>	Siria	~240-130 ky.	Tarantian Pleistocene	Yes, incomplete	No	No
	Krapina 1*		Croacia	~125 ky.		No	Yes, commingled	Yes, commingled
	Krapina 3		Croacia	~125 ky.		Yes, incomplete	Yes, commingled	Yes, commingled
	Tabun 1	<i>Homo neanderthalensis</i>	Israel	~120 ky.		Yes, incomplete	Yes, incomplete	No
	Saccopastore 1, 2		Italy	~115 ky.		Yes, complete	No	No
	Kiik-Koba 3		Ukraine	~100 ky.		Yes, incomplete	Yes, incomplete	Yes, incomplete
	Shanidar 3		Irak	~80-60 ky.		Yes, incomplete	Yes, fairly complete	Yes, fairly complete
	Shanidar 1, 2, 4		Irak	~80-60 ky.		Yes, incomplete	Yes, incomplete	Yes, incomplete
	Shanidar 7, 9*		Irak	~80-60 ky.		Yes, incomplete	Yes, incomplete	Yes, incomplete
	Roc de Marsal 1*		France	~60-70 ky.		Yes, complete	Yes, fairly complete	Yes, fairly complete
	Mezmaiskaya 1*		Russia	~64 ky.		Yes, incomplete	Yes, fairly complete	Yes, fairly complete
	La Chapelle Aux Saints 1 (The Old Man)		France	~60 ky.		Yes, complete	Yes, fairly complete	Yes, fairly complete
	La Ferrassie 1		France	~60 ky.		Yes, complete	Yes, fairly complete	Yes, fairly complete
	La Ferrassie 6*		France	~60 ky.		Yes, incomplete	Yes, incomplete	Yes, incomplete
	La Ferrassie 8*		France	~60 ky.		Yes, incomplete	Yes, incomplete	Yes, incomplete
	Gibraltar 1		U.K.	~60 ky.		Yes, complete	Yes, incomplete	Yes, incomplete
	Spy 1, 2		Belgium	~60 ky.		Yes, incomplete	Yes, incomplete	Yes, incomplete
	Kebara 1*		Israel	~58 ky.		Yes, incomplete	Yes, incomplete	Yes, incomplete
	Kebara 2		Israel	~58 ky.		No	Yes, fairly complete	Yes, fairly complete
	Amud 7		Israel	~56.5 ky.		Yes, incomplete	Yes, incomplete	Yes, incomplete
	Monte Circeo 1		Italy	~50 ky.		Yes, incomplete	No	No
	El Sidrón hominins*		Spain	~48 ky.		Yes, commingled	Yes, commingled	Yes, commingled
	El Sidrón J1*		Spain	~48 ky.		Yes, incomplete	Yes, incomplete	Yes, incomplete
	Le Moustier 2*		France	~40 ky.		Yes, incomplete	Yes, fairly complete	Yes, fairly complete
	Jebel Irhoud 10	<i>Homo sapiens</i>	Morocco	~315 ky.	Tarantian Pleistocene	Yes, incomplete	No	No
	Omo 1		Ethiopia	~200 ky.		No	Yes, incomplete	Yes, incomplete
	BOU-VP-16/1 (Herto Man)		Ethiopia	~160 ky.		Yes, complete	No	No
	Jebel Irhoud 14, 15		Morocco	~160 ky.		Yes, incomplete	Yes, incomplete	No
	LH 18 (Ngaloba Skull)		Tanzania	~120 ky.		Yes, incomplete	No	No
	Skhul 1*		Israel	~100 ky.		Yes, incomplete	Yes, fairly complete	Yes, fairly complete
	Skhul 4, 5, 9		Israel	~100 ky.		Yes, incomplete	Yes, complete	Yes, complete
	Qafzeh 9		Israel	~100 ky.		Yes, complete	Yes, complete	Yes, complete
	Qafzeh non-adult hominins*		Israel	~100 ky.		Yes, complete	Yes, complete	Yes, complete
	Panga Ya Saidi skeleton (Mtoto)		Kenya	~78.3 ky.		Yes, incomplete	Yes, incomplete	Yes, incomplete
	Liujiang Man		China	~70 ky.		Yes, complete	No	Yes, incomplete
	Lake Mungo 1, 3		Australia	~40 ky.		Yes, incomplete	Yes, incomplete	Yes, incomplete
	Hofmeyr 1		South Africa	~40 ky.		Yes, incomplete	No	No
	Oase 1, 2		Romania	~40 ky.		Yes, complete	No	No
	Fa-Hien Lena skeleton		Sri Lanka	~37 ky.		Yes, incomplete	Yes, incomplete	Yes, incomplete
	Nazlet Khater 2		Egypt	~35 ky.		Yes, incomplete	Yes, incomplete	Yes, complete
	Red Lady of Paviland		U. K.	~33 ky.		No	Yes, incomplete	Yes, incomplete
	Balangoda Man		Sri Lanka	~35 ky.		Yes, incomplete	Yes, incomplete	Yes, incomplete

Group 4	Cro Magnon hominins Grimaldi Man Moh Khiew 1 Dolni Vestonice hominins Lapedo 1/Lagar Velho 1* Abri Pataud hominins Minatogawa Man TP1 Batadomba Lena skeleton Chancelade Maludong Oberkassel 1, 2 Grotte des Pigeons		France Italy Thailand Czech Republic Portugal France Japan South Africa Sri Lanka France China Germany Morocco	~28 ky. ~26 ky. ~26 ky. ~25 ky. ~24.5 ky. ~22 ky. ~22 ky. ~20 ky. ~16 ky. ~15 ky. ~15 ky. ~14 ky. ~13 ky.		Yes, complete Yes, complete Yes, incomplete Yes, complete No Yes, incomplete Yes, complete No Yes, incomplete Yes, incomplete Yes, incomplete Yes, complete Yes, incomplete	Yes, commingled Yes, complete Yes, incomplete Yes, commingled Yes, incomplete Yes, commingled Yes, incomplete Yes, incomplete Yes, incomplete Yes, incomplete Yes, incomplete Yes, complete Yes, complete	Yes, commingled Yes, complete Yes, incomplete Yes, commingled Yes, incomplete Yes, commingled Yes, incomplete Yes, incomplete Yes, incomplete Yes, incomplete Yes, incomplete Yes, complete Yes, complete
	Longlin 1 Wadjak 1 Cuncaicha hominins* Paiján hominins Loizu Man Nataruk (KNM-WT 71251-71277) La Brea Woman Roonka Flat hominins* Combe Chapelle GC 1 (Cheddar Man) Kannevick Man RS-H1 Otzi Muierii 5	<i>Homo sapiens</i>	China Indonesia Peru Peru Spain Kenya U.S.A. Australia France U.K. U.S.A. Libya Italy Romania	~12 ky. ~12 ky. ~12 ky. ~12 ky. ~11.5 ky. ~11 ky. ~10 ky. ~10 ky. ~9.5 ky. ~9 ky. ~8.5 ky. ~6 ky. ~5 ky. ~3.5 ky.	Holocene	Yes, incomplete Yes, incomplete Yes, incomplete Yes, incomplete Yes, incomplete Yes, complete Yes, incomplete Yes, incomplete Yes, incomplete Yes, incomplete Yes, incomplete Yes, complete Yes, incomplete Yes, complete No	Yes, incomplete No Yes, incomplete Yes, incomplete Yes, fairly complete Yes, complete Yes, incomplete Yes, incomplete Yes, incomplete Yes, incomplete Yes, complete Yes, fairly complete Yes, complete Yes, incomplete	No No Yes, incomplete Yes, incomplete Yes, complete Yes, complete Yes, incomplete Yes, incomplete Yes, incomplete Yes, incomplete Yes, complete Yes, fairly complete Yes, complete Yes, incomplete

*Non-adult individual or group containing non-adult individuals