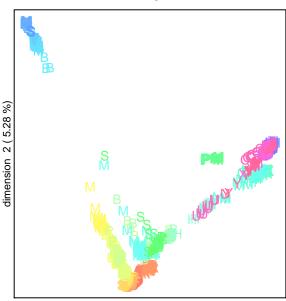
## MDS:



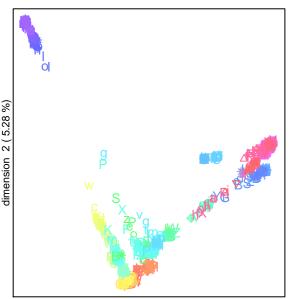
dimension 1 (6.72 %)

Orcadian Colombian Adygei Karitiana Surui R Russian Basque Maya Pima French Italian BantuSouthAfrica Sardinian BantuKenya Tuscan M Mandenka Mozabite Y Yoruba Bedouin BiakaPygmy M MbutiPygmy Druze Palestinian S San Balochi H Han Brahui H Han-NChina D Dai Burusho Hazara D Daur Kalash H Hezhen Makrani Lahu Pathan M Miao Sindhi Orogen Melanesian S She Papuan Tujia

T Tu
X Xibo
Y Yi
M Mongola
N Naxi
U Uygur
C Cambodian
J Japanese

Y Yakut

## MDS:



dimension 1 (6.72 %)

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HGDP00891
 HGDP00794
              HGDP01388
  HGDP00795
              HGDP01396
                           HGDP00892
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  HGDP00797
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  HGDP00798
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                           HGDP00895
  HGDP00799
              HGDP01400
                           HGDP00896
              HGDP01401
W HGDP00800
                           HGDP00897
  HGDP00802
              HGDP01402
                           HGDP00898
  HGDP00803
              HGDP01403
                           HGDP00899
  HGDP00804
              HGDP01404
                           HGDP00900
  HGDP00805
              HGDP00879
                           HGDP00901
  HGDP00806
              HGDP00880
                           HGDP00902
  HGDP00807
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                           HGDP00903
  HGDP00808
              HGDP00882
                           HGDP01357
              HGDP00883
                           HGDP01358
  HGDP00810
  HGDP01381
              HGDP00884
                           HGDP01359
  HGDP01382
              HGDP00885
                           HGDP01360
  HGDP01383
              HGDP00886
                          HGDP01361
  HGDP01384
              HGDP00887
                           HGDP01362
  HGDP01385
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                           HGDP01363
  HGDP01386
              HGDP00889
                           HGDP01364
  HGDP01387
              HGDP00890
                          HGDP01365
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HGDP01366	w HGDP01063 n HGDP01168 → HGDP01275 ○ HGDP01064 a HGDP01169 S HGDP01276
□ HGDP01368 P HGDP00520 W HGDP01153	Q HGDP01065 S HGDP01253 X HGDP01277
m HGDP01369 a HGDP00521 F HGDP01155	G HGDP01066 R HGDP01254 e HGDP01278
	9 HGDP01067 × HGDP01255 × HGDP01279
e HGDP01371 △ HGDP00523 🗵 HGDP01157	D HGDP01068   HGDP01256 × HGDP01280
♦ HGDP01372   HGDP00524 9 HGDP01171	V HGDP01069 У HGDP01257 Г HGDP01282
Z HGDP01373 S HGDP00525 F HGDP01172	□ HGDP01070 j HGDP01258 F HGDP00607
× HGDP01374 Y HGDP00526 × HGDP01173	n HGDP01071 U HGDP01259 L HGDP00608
V HGDP01375	Q HGDP01072 K HGDP01260 a HGDP00609
P HGDP01376 d HGDP00528 9 HGDP01177	M HGDP01073 W HGDP01261 9 HGDP00610
× HGDP01377 r HGDP00529 n HGDP00665	HGDP01074
U HGDP01378 ♦ HGDP00530 N HGDP00666	A HGDP01075 N HGDP01263 m HGDP00612
9 HGDP01379 G HGDP00531 P HGDP00667	□ HGDP01076 X HGDP01264 ♦ HGDP00613
G HGDP01380 t HGDP00533 △ HGDP00668	t HGDP01077 O HGDP01265 C HGDP00614
× HGDP00511 C HGDP00534 Z HGDP00669	□ HGDP01078 L HGDP01266 ♦ HGDP00615
C HGDP00512 W HGDP00535 A HGDP00670	T HGDP01079 E HGDP01267 E HGDP00616
▼ HGDP00513 F HGDP00536 × HGDP00671	h HGDP01162 h HGDP01268 U HGDP00618
V HGDP00514 9 HGDP00537 i HGDP00672	s HGDP01163 t HGDP01269 P HGDP00619
b HGDP00515 U HGDP00538 Y HGDP00673	U HGDP01164 R HGDP01272 S HGDP00620
■ HGDP00516 W HGDP00539 W HGDP00674	□ HGDP01166 J HGDP01273 Y HGDP00622
P HGDP00517 X HGDP01147 f HGDP01062	♦ HGDP01167  HGDP01274  HGDP00623

P HGDP00625  ☐ HGDP00648		
F HGDP00626	E HGDP00624 b HGDP00647 9 HGDP00572	N HGDP00599 K HGDP00692 e HGDP00737
HGDP00627 A HGDP00650 V HGDP00575 HGDP00628 P HGDP00651 A HGDP00576 HGDP00629 Z HGDP00653 T HGDP00577 HGDP00630 G HGDP00654 A HGDP00578 HGDP00631 W HGDP00701 k HGDP00579 HGDP00632 J HGDP00557 V HGDP00580 HGDP00634 D HGDP00557 V HGDP00580 HGDP00635 + HGDP00558 A HGDP00581 HGDP00636 HGDP00559 C HGDP00582 HGDP00637 S HGDP00560 I HGDP00582 HGDP00638 O HGDP00560 I HGDP00583 HGDP00638 O HGDP00561 □ HGDP00584 W HGDP00639 C HGDP00584 W HGDP00638 O HGDP00561 □ HGDP00585 F HGDP00639 C HGDP00586 F HGDP00640 V HGDP00565 P HGDP00587 □ HGDP00640 V HGDP00565 P HGDP00590 K HGDP00640 U HGDP00566 I HGDP00591 W HGDP00648 W HGDP00568 N HGDP00569 HGDP00648 W HGDP00568 N HGDP00590 W HGDP00648 W HGDP00733 N HGDP000680 N HGDP00735 M HGDP000735	P HGDP00625 Q HGDP00648 X HGDP00573	s HGDP00600 b HGDP00693 m HGDP00738
HGDP00628	F HGDP00626 ⋈ HGDP00649 N HGDP00574	□ HGDP00601 i HGDP00694 R HGDP00739
HGDP00629 Z HGDP00653 T HGDP00577 C HGDP00630 G HGDP00654 A HGDP00578 N HGDP00631 W HGDP00701 k HGDP00579 □ HGDP00632 J HGDP00557 V HGDP00580 □ HGDP00634 □ HGDP00558 A HGDP00581 □ HGDP00635 + HGDP00559 □ HGDP00582 □ HGDP00636 □ HGDP00559 □ HGDP00583 □ HGDP00637 S HGDP00560 □ HGDP00583 □ HGDP00637 S HGDP00560 □ HGDP00583 □ HGDP00638 □ HGDP00561 □ HGDP00584 □ HGDP00639 □ HGDP00561 □ HGDP00586 □ HGDP00639 □ HGDP00562 □ HGDP00586 □ HGDP00641 □ HGDP00565 □ HGDP00586 □ HGDP00641 □ HGDP00565 □ HGDP00580 □ HGDP00641 □ HGDP00565 □ HGDP00580 □ HGDP00644 □ HGDP00565 □ HGDP00590 □ HGDP00644 □ HGDP00565 □ HGDP00590 □ HGDP00644 □ HGDP00566 □ HGDP00591 □ HGDP00645 □ HGDP00568 □ HGDP00591 □ HGDP00648 □ HGDP00568 □ HGDP00591 □ HGDP00648 □ HGDP00568 □ HGDP00595 □ HGDP00645 □ HGDP00569 □ HGDP00595 □ HGDP00645 □ HGDP00569 □ HGDP00591 □ HGDP00689 □ HGDP00732 □ HGDP000680 □ HGDP00733 □ HGDP000680 □ HGDP00733 □ HGDP000730 □	H HGDP00627 A HGDP00650 ∨ HGDP00575	9 HGDP00602 P HGDP00696 V HGDP00740
C HGDP00630 G HGDP00654 A HGDP00578         Y HGDP00675 × HGDP00699 ** HGDP0074           N HGDP00631 W HGDP00701 k HGDP00579         HGDP00676 9 HGDP00700 B HGDP0074           N HGDP00632 J HGDP00557 V HGDP00580         HGDP00677 G HGDP00722 b HGDP0058           HGDP00634 D HGDP00558 A HGDP00559 C HGDP00581         HGDP00677 G HGDP00722 b HGDP0058           HGDP00635 + HGDP00559 C HGDP00582         HGDP00679 R HGDP00724 P HGDP0058           HGDP00637 S HGDP00560 L HGDP00583         HGDP00680 D HGDP00725 Z HGDP0005           HGDP00638 HGDP00561 L HGDP00586 D HGDP00586 HGDP00680 HGDP00684 D HGDP00684 D HGDP00684 D HGDP00684 D HGDP00684 D HGDP00685 D HGDP00688 D HGDP00685 D HGDP00686 D HGDP00688 D HGDP00729 X HGDP00068         HGDP00684 D HGDP00720 D HGDP00720 D HGDP00068           K HGDP00642 D HGDP00565 P HGDP00590 HGDP00644 D HGDP00566 D HGDP00591 D HGDP00644 D HGDP00568 D HGDP00594 D HGDP00648 D HGDP00734 D HGDP00734 D HGDP00734 D HGDP00734 D HGDP00734 D HGDP00735 D HG	b HGDP00628 P HGDP00651 A HGDP00576	m HGDP00604 m HGDP00697 r HGDP00741
N HGDP00631         W HGDP00701         k HGDP00579           N HGDP00632         J HGDP00557         V HGDP00580           HGDP00634         D HGDP00558         A HGDP00581           HGDP00635         H HGDP00558         A HGDP00581           HGDP00636         HGDP00559         C HGDP00582           HGDP00637         H HGDP00560         H HGDP00583           HGDP00637         H HGDP00560         H HGDP00583           HGDP00637         H HGDP00561         H HGDP00584           HGDP00638         H HGDP00561         H HGDP00584           H HGDP00639         H HGDP00562         H HGDP00586           H HGDP00639         H HGDP00562         H HGDP00586           H HGDP00639         H HGDP00563         H HGDP00586           H HGDP00640         H HGDP00563         H HGDP00586           H HGDP00641         H HGDP00565         H HGDP00586           H HGDP00642         H HGDP00565         H HGDP00590           H HGDP00644         H HGDP00566         H HGDP00591           H HGDP00645         H HGDP00568         H HGDP00689           H HGDP00645         H HGDP00569         H HGDP00591           HGDP00645         H HGDP00566         H HGDP00591           H HGDP00645         <	t HGDP00629 Z HGDP00653 ⊤ HGDP00577	B HGDP00606 S HGDP00698 Y HGDP00744
HGDP00632 J HGDP00557 V HGDP00580 HGDP00634 D HGDP00558 A HGDP00581 HGDP00635 + HGDP00559 ○ HGDP00582 RHGDP00636 ○ HGDP00560 □ HGDP00583 □ HGDP00637 S HGDP00561 □ HGDP00584 W HGDP00638 ○ HGDP00561 □ HGDP00584 □ HGDP00639 □ HGDP00562 □ HGDP00586 □ HGDP00639 □ HGDP00563 □ HGDP00586 □ HGDP00641 □ HGDP00587 □ HGDP00640 V HGDP00565 □ HGDP00587 □ HGDP00641 □ HGDP00565 □ HGDP00588 □ HGDP00641 □ HGDP00565 □ HGDP00580 □ HGDP00642 ○ HGDP00565 □ HGDP00590 □ HGDP00643 □ HGDP00566 □ HGDP00591 □ HGDP00644 □ HGDP00568 □ HGDP00594 □ HGDP00645 □ HGDP00568 □ HGDP00595 □ HGDP00645 □ HGDP00569 □ HGDP00595 □ HGDP00669 □ HGDP00733 □ HGDP000735	C HGDP00630 G HGDP00654 A HGDP00578	Y HGDP00675 × HGDP00699 * HGDP00745
## HGDP00634 D HGDP00558 A HGDP00581 ## HGDP00635 + HGDP00559 C HGDP00582 ## HGDP00636 C HGDP00560		△ HGDP00676
9 HGDP00635 + HGDP00559 □ HGDP00582         □ HGDP00636 □ HGDP00560 □ HGDP00583         □ HGDP00636 □ HGDP00583         □ HGDP00637 □ HGDP00584         □ HGDP00637 □ HGDP00584         □ HGDP00638 □ HGDP00586         □ HGDP00638 □ HGDP00586         □ HGDP00638 □ HGDP00586         □ HGDP00638 □ HGDP00586         □ HGDP00683 □ HGDP00727 □ HGDP00068         □ HGDP00683 □ HGDP00727 □ HGDP00068         □ HGDP00684 □ HGDP00727 □ HGDP00068         □ HGDP00684 □ HGDP00729 □ HGDP00068         □ HGDP00684 □ HGDP00729 □ HGDP00068         □ HGDP00685 □ HGDP00685 □ HGDP00685         □ HGDP00685 □ HGDP00730 □ HGDP00068         □ HGDP00686 □ HGDP00731 □ HGDP00068         □ HGDP00687 □ HGDP00732 □ HGDP0073         □ HGDP00688 □ HGDP00733 □ HGDP0073         □ HGDP00688 □ HGDP00733 □ HGDP0073         □ HGDP00689 □ HGDP00734 □ HGDP0073         □ HGDP00679 □ HGDP00679 □ HGDP0073         □ HGDP00689 □ HGDP00735 □ HGDP0073         □ HGDP00679 □ HGDP00735 □ HGDP0073         □ HGDP00679 □ HGDP00735 □ HGDP0073         □ HGDP00689 □ HGDP00735 □ HGDP0073         □ HGDP00679 □ HGDP00735 □ HGDP00735 □ HGDP0073         □ HGDP00679 □ HGDP00735 □	♦ HGDP00632 J HGDP00557 V HGDP00580	H HGDP00677 G HGDP00722 b HGDP00052
R HGDP00636         ○ HGDP00560         □ HGDP00583           O HGDP00637         S HGDP00561         □ HGDP00584           W HGDP00638         ○ HGDP00562         h HGDP00586           F HGDP00639         H HGDP00563         L HGDP00587           O HGDP00640         Y HGDP00564         E HGDP00588           O HGDP00641         J HGDP00565         P HGDP00588           O HGDP00642         O HGDP00566         I HGDP00591           O HGDP00643         D HGDP00567         X HGDP00594           O HGDP00644         U HGDP00568         H HGDP00595           O HGDP00645         K HGDP00569         H HGDP00689           O HGDP00645         H HGDP00569         H HGDP00680           O HGDP00727         H HGDP0068           O HGDP00684         H HGDP00729         H HGDP0068           O HGDP00645         H HGDP00591         H HGDP00685         H HGDP00732         J HGDP0073           O HGDP00645         H HGDP00568         H HGDP00688         H HGDP00733         H HGDP0073           O HGDP00645         H HGDP00568         H HGDP00689         H HGDP00690         H HGDP00735         H HGDP00735	a HGDP00634 D HGDP00558 A HGDP00581	■ HGDP00678 j HGDP00723 E HGDP00054
HGDP00637 S HGDP00561	9 HGDP00635 + HGDP00559 © HGDP00582	▼ HGDP00679 R HGDP00724 9 HGDP00056
W HGDP00638         ○ HGDP00562         ♭ HGDP00586         □ HGDP00683         ₲ HGDP00727         ℮ HGDP0066         □ HGDP00683         ₲ HGDP00727         ℮ HGDP0066         □ HGDP00684         ₲ HGDP00727         ℮ HGDP0066         □ HGDP00588         □ HGDP00684         ₲ HGDP00729         ※ HGDP0066         □ HGDP00586         ℎ HGDP00685         ӌ HGDP00685         ӌ HGDP00685         ӌ HGDP00685         ӌ HGDP00686         ӌ HGDP00686         ӌ HGDP00686         ӌ HGDP00686         ӌ HGDP00731         ⋃ HGDP00686         ӌ HGDP00687         ͻ HGDP00687         ӎ HGDP00687         ӎ HGDP00688         ӎ HGDP00732         ฎ HGDP00732         ฎ HGDP00733         ӎ HGDP00733         ӎ HGDP00733         ӎ HGDP00734         ӎ HGDP00689         ӎ HGDP00689         ӎ HGDP00690         ӎ HGDP00735	R HGDP00636 O HGDP00560   HGDP00583	M HGDP00680 O HGDP00725 Z HGDP00057
HGDP00639		i HGDP00682 × HGDP00726 f HGDP00058
D HGDP00640	W HGDP00638 O HGDP00562 h HGDP00586	∇ HGDP00683 G HGDP00727 e HGDP00060
Q HGDP00641 j HGDP00565 P HGDP00590       m HGDP00686 ♦ HGDP00731 ○ HGDP00666         K HGDP00642 ◇ HGDP00566 i HGDP00591       e HGDP00687 △ HGDP00732 J HGDP0066         V HGDP00643 b HGDP00567 X HGDP00594       k HGDP00688 u HGDP00733 h HGDP0073         J HGDP00645 k HGDP00569 P HGDP00597       V HGDP00689 R HGDP00734 + HGDP0073	F HGDP00639 d HGDP00563 L HGDP00587	110=110001 = 110=1101=0
K HGDP00642 ◇ HGDP00566 i HGDP00591       ■ HGDP00687 △ HGDP00732 J HGDP0066         ▼ HGDP00643 b HGDP00567 X HGDP00594       ■ HGDP00688 □ HGDP00733 h HGDP0073         ⑤ HGDP00644 □ HGDP00568 h HGDP00595       ■ HGDP00689 ℝ HGDP00734 + HGDP0073         ⑥ HGDP00645 k HGDP00569 ℙ HGDP00597       ■ HGDP00690 ▼ HGDP00735 m HGDP0073		
∀ HGDP00643 b         b HGDP00567 X HGDP00594           Ø HGDP00644 U         HGDP00568 b         HGDP00595           Ø HGDP00645 k         HGDP00569 P         HGDP00597             K         HGDP00688 U         HGDP00733 b         HGDP000734 +           J         HGDP00649 V         HGDP00735 m         HGDP000735 m		
9 HGDP00644 U HGDP00568 h HGDP00595 3 HGDP00645 k HGDP00569 P HGDP00597		
G HGDP00645 k HGDP00569 P HGDP00597 △ HGDP00690 V HGDP00735 m HGDP0007		
	* HGDP00646 e HGDP00571 P HGDP00598	U HGDP00691 K HGDP00736 ○ HGDP00076

U HGDP00078         t HGDP00025         9 HGDP00372         ♦ HGDP00106         Z HGDP00286         M HGDP00136         ▼ HGDP00080         У HGDP00027         W HGDP00376         ● HGDP00108         Γ HGDP00288         T HGDP00137         ▼ HGDP00082         P HGDP00029         X HGDP00137         ▼ HGDP00038         ▼ HGDP00031         ○ HGDP00388         ▼ HGDP00031         ○ HGDP00388         ■ HGDP00038         ● HGDP00033         G HGDP00392         ■ HGDP00030         ○ HGDP000392         ■ HGDP00030         ▶ HGDP000392         ■ HGDP000303         ■ HGDP000397         ■ HGDP00115         △ HGDP000302         ▶ HGDP00141         ■ HGDP00115         △ HGDP000304         ▶ HGDP00141         ■ HGDP00116         ▼ HGDP00302         ▶ HGDP00141         ■ HGDP00115         △ HGDP00141         ■ HGDP00115         △ HGDP00141         ■ HGDP00116         ▼ HGDP00302         ▶ HGDP00144         ■ HGDP00116         ▼ HGDP00307         ♠ HGDP00144         ■ HGDP00116         ▼ HGDP00307         ♠ HGDP00144         ■ HGDP00116         ▼ HGDP00309         ▼ HGDP00144         ■ HGDP00116         ▼ HGDP00309         ▼ HGDP00144         ■ HGDP00116         ▼ HGDP00309         ▼ HGDP00144         ■ HGDP00116         ■ HGDP00309         ▼ HGDP00114         ■ HGDP00116         ■ HGDP00311         ■ HGDP00114         ■ HGDP00116         ■ HGDP00311         ■ HGDP00114         ■ HGDP00116 <th></th> <th></th>		
M HGDP00082 P HGDP00029 × HGDP00382	u HGDP00078 t HGDP00025 q HGDP00372	♦ HGDP00106 Z HGDP00286 M HGDP00136
P HGDP00086	▼ HGDP00080 У HGDP00027 W HGDP00376	○ HGDP00108 r HGDP00288 T HGDP00137
M HGDP00088         ♦ HGDP00033         G HGDP00392         k HGDP00112         У HGDP00302         k HGDP00141           ** HGDP00090         С HGDP00035         а HGDP00397         T HGDP00115         △ HGDP00304         k HGDP00143           V HGDP00092         V HGDP00037         W HGDP00402         B HGDP00116         X HGDP00307         A HGDP00144           C HGDP00094         F HGDP00039         A HGDP00407         B HGDP00118         F HGDP00309         Y HGDP00145           W HGDP00098         HGDP00041         E HGDP00417         M HGDP00120         H HGDP00311         P HGDP00313         P HGDP00146         M HGDP00122         P HGDP00313         P HGDP00150         P HGDP00122         P HGDP00315         P HGDP00323         P HGDP00150         P HGDP00122         P HGDP00323         P HGDP00153         P HGDP00122         P HGDP00323         P HGDP00153         P HGDP00122         P HGDP00326         P HGDP00153         P HGDP00122         P HGDP00323         P HGDP00153         P HGDP00122         P HG	m HGDP00082 P HGDP00029 × HGDP00382	♦ HGDP00109 ♦ HGDP00290 F HGDP00139
# HGDP00090	P HGDP00086 U HGDP00031 C HGDP00388	□ HGDP00110 🗵 HGDP00298 🔾 HGDP00140
V HGDP00092         V HGDP00037         W HGDP00402           C HGDP00094         F HGDP00039         a HGDP00407           V HGDP00096         K HGDP00041         E HGDP00412           D HGDP00098         D HGDP00412         D HGDP00118           D HGDP00011         D HGDP00311         D HGDP00311           D HGDP00011         D HGDP00311         D HGDP00311           D HGDP00001         D HGDP00423         D HGDP00120           D HGDP00003         D HGDP00423         D HGDP00121           D HGDP00012         D HGDP00315         D HGDP00149           D HGDP00005         D HGDP00433         D HGDP00122           D HGDP00007         D HGDP00336         D HGDP00438           D HGDP00009         D HGDP00338         D HGDP00338           D HGDP00011         D HGDP00326         D HGDP00153           D HGDP00013         D HGDP00341         D HGDP00351         D HGDP00155           D HGDP00015         D HGDP00330         D HGDP00157         D HGDP00130         D HGDP00130         D HGDP00150           D HGDP00017         D HGDP00356         D HGDP00100         D HGDP0017         D HGDP00131         D HGDP00150           D HGDP00019         D HGDP00356         D HGDP00100         D HGDP00131         D HGDP00	m HGDP00088 ♦ HGDP00033 G HGDP00392	k HGDP00112 y HGDP00302 k HGDP00141
C HGDP00094 F HGDP00039 a HGDP00407  V HGDP00096 K HGDP00041 E HGDP00412 d HGDP00098 ♦ HGDP00043 Q HGDP00417 K HGDP00001 C HGDP00045 i HGDP00423 E HGDP00003 B HGDP00047 № HGDP00428 W HGDP00005 S HGDP00049 S HGDP00433 □ HGDP00007 □ HGDP00336 U HGDP00438 d HGDP00009 H HGDP00338 C HGDP00444 Δ HGDP00011 H HGDP00338 C HGDP00444 Δ HGDP00011 H HGDP00338 C HGDP00445 S HGDP00015 HGDP0038 C HGDP0045 S HGDP00015 HGDP00338 C HGDP0045 S HGDP00017 Q HGDP00356 U HGDP00100 W HGDP00017 Q HGDP00356 U HGDP00100 U HGDP00019 Z HGDP00359 S HGDP00103 HGDP00010 U HGDP00314 H HGDP00101 U HGDP00021 □ HGDP00364 ♦ HGDP00104  HGDP00021 □ HGDP00364 → HGDP00104  HGDP00021 □ HGDP00364 → HGDP00104	* HGDP00090 C HGDP00035 a HGDP00397	T HGDP00115 △ HGDP00304 k HGDP00143
V HGDP00096 K HGDP00041 E HGDP00412	V HGDP00092 V HGDP00037 W HGDP00402	■ HGDP00116 × HGDP00307 A HGDP00144
d HGDP00098         → HGDP00043         Q HGDP00417         M HGDP00120         H HGDP00313         ○ HGDP00148           K HGDP00001         C HGDP00045         i HGDP00423         □ HGDP00121         I HGDP00315         I HGDP00149           E HGDP00003         B HGDP00047         □ HGDP00428         H HGDP00122         Q HGDP00319         X HGDP00150           W HGDP00005         S HGDP00049         S HGDP00433         V HGDP00124         M HGDP00323         Z HGDP00151           □ HGDP00007         □ HGDP00338         C HGDP00448         M HGDP00125         M HGDP00125         M HGDP00326         + HGDP00154           △ HGDP00011         H HGDP00341         R HGDP00445         Z HGDP00127         D HGDP00330         Z HGDP00154           Z HGDP00013         N HGDP00045         D HGDP000267         K HGDP00333         → HGDP00157           S HGDP00017         Q HGDP00356         U HGDP00100         D HGDP00274         D HGDP00130         N HGDP00158           X HGDP00019         Z HGDP00356         U HGDP00103         L HGDP00279         U HGDP00131         D HGDP00160           U HGDP00021         U HGDP00364         HGDP00104         U HGDP00281         U HGDP00134         H HGDP00134	© HGDP00094 F HGDP00039 a HGDP00407	
K HGDP00001 C HGDP00045 i HGDP00423         E HGDP00003 B HGDP00047 № HGDP00428         W HGDP00005 S HGDP00049 S HGDP00433         U HGDP00007 □ HGDP00336 U HGDP00438         U HGDP00014 HGDP00338 C HGDP00444         A HGDP00011 H HGDP00341 R HGDP00445         S HGDP00013 N HGDP00346 C HGDP00099         S HGDP00015 HGDP00350 U HGDP00100         X HGDP00017 Q HGDP00356 U HGDP00102         U HGDP00019 Z HGDP00359 S HGDP00103         H HGDP00211 I HGDP00314 H HGDP00104         U HGDP00211 I HGDP00134 H HGDP00103         U HGDP0015 I HGDP00359 S HGDP00103         U HGDP00211 U HGDP00364 HGDP00104	V HGDP00096 K HGDP00041 E HGDP00412	♦ HGDP00119 S HGDP00311 P HGDP00146
E HGDP00003 B HGDP00047 ☑ HGDP00428 W HGDP00005 S HGDP00049 S HGDP00433 □ HGDP00007 □ HGDP00336 U HGDP00438 □ HGDP00009 H HGDP00338 □ HGDP00444 □ HGDP00011 H HGDP00341 R HGDP00445 □ HGDP00013 □ HGDP00346 □ HGDP00049 □ HGDP00015 + HGDP00351 W HGDP00100 □ HGDP00017 □ HGDP00356 U HGDP00102 □ HGDP00019 □ HGDP00359 S HGDP00103 □ HGDP00021 □ HGDP00364 ⊕ HGDP00104  H HGDP00021 □ HGDP00364 ⊕ HGDP00104  H HGDP00122 □ HGDP00323 ☑ HGDP00151 □ HGDP00125 ☑ HGDP00326 ⊢ HGDP00154 □ HGDP00129 □ HGDP00330 ☑ HGDP00157 □ HGDP00274 □ HGDP00130 № HGDP00158 □ HGDP00277 □ HGDP00131 ⊕ HGDP00160 □ HGDP00021 □ HGDP00364 ⊕ HGDP00104 □ HGDP000281 □ HGDP00134 ⊢ HGDP00213	d HGDP00098 ♦ HGDP00043 Q HGDP00417	
W HGDP00005       S HGDP00049       S HGDP00433         □ HGDP00007       □ HGDP00336       U HGDP00438         □ HGDP00009       H HGDP00338       □ HGDP00444         △ HGDP00011       H HGDP00338       □ HGDP00445         ⑤ HGDP00013       □ HGDP00341       R HGDP000445         ⑤ HGDP00015       H HGDP00346       □ HGDP00099         ⑤ HGDP00015       H HGDP00351       W HGDP00100         Ø HGDP00017       H HGDP00356       U HGDP00102         W HGDP00019       U HGDP00359       S HGDP00103         H HGDP00210       U HGDP00279       U HGDP00133       F HGDP00161         U HGDP00021       U HGDP00364       H HGDP00104       U HGDP00281       U HGDP00134       H HGDP00213	K HGDP00001 C HGDP00045 i HGDP00423	□ HGDP00121   HGDP00315   HGDP00149
□ HGDP00007 □ HGDP00336 U HGDP00438 d HGDP00009 H HGDP00338 □ HGDP00444 Δ HGDP00011 H HGDP00341 R HGDP00445 S HGDP00013 □ HGDP00346 □ HGDP00099 S HGDP00015 + HGDP00351 W HGDP00100 X HGDP00017 □ HGDP00356 U HGDP00102 U HGDP00019 Z HGDP00359 S HGDP00103 + HGDP00021 □ HGDP00364 ⊕ HGDP00104  □ HGDP00021 □ HGDP00364 ⊕ HGDP00104  □ HGDP00021 □ HGDP00364 ⊕ HGDP00104  □ HGDP00213 □ HGDP00134 H HGDP00213  □ HGDP00213 □ HGDP00134 H HGDP00213		
d HGDP00009 H HGDP00338 C HGDP00444		
△ HGDP00011 H HGDP00341 R HGDP00445 S HGDP00013 n HGDP00346 C HGDP00099 S HGDP00015 + HGDP00351 W HGDP00100 X HGDP00017 9 HGDP00356 U HGDP00102 U HGDP00019 Z HGDP00359 S HGDP00103 + HGDP00021 □ HGDP00364 ⊕ HGDP00104  □ HGDP00021 □ HGDP00364 ⊕ HGDP00104  □ HGDP00021 □ HGDP00364 ⊕ HGDP00104  □ HGDP00213 □ HGDP00134 H HGDP00213		
S HGDP00013 n HGDP00346 C HGDP00099 S HGDP00015 + HGDP00351 W HGDP00100 X HGDP00017 Q HGDP00356 U HGDP00102 U HGDP00019 Z HGDP00359 S HGDP00103 + HGDP00021 D HGDP00364 DHGDP00104  C HGDP00277 U HGDP00131 DHGDP00160 C HGDP00279 I HGDP00133 F HGDP00161 U HGDP00281 U HGDP00134 H HGDP00213		
S HGDP00015 + HGDP00351 W HGDP00100       9 HGDP00274 P HGDP00130 N HGDP00158         X HGDP00017 9 HGDP00356 U HGDP00103       HGDP00103 K HGDP00103         U HGDP00019 Z HGDP00359 S HGDP00103 + HGDP00104       C HGDP00279 I HGDP00133 F HGDP00161         U HGDP00021 □ HGDP00364 Φ HGDP00104       U HGDP00281 U HGDP00134 H HGDP00213		
× HGDP00017       9 HGDP00356       u HGDP00102       k HGDP00277       u HGDP00131       ◆ HGDP00160         ∪ HGDP00019       Z HGDP00359       s HGDP00103       c HGDP00279       l HGDP00133       F HGDP00161         u HGDP00021       u HGDP00364       ◆ HGDP00104       u HGDP00281       U HGDP00134       H HGDP00213		
U HGDP00019 Z HGDP00359 S HGDP00103		
+ HGDP00021 □ HGDP00364 ♦ HGDP00104		
● HGDP00023 J HGDP00371 i HGDP00105   □ □ HGDP00285 ○ HGDP00135 K HGDP00214		
	e HGDP00023 J HGDP00371 i HGDP00105	▼ HGDP00285 ○ HGDP00135 K HGDP00214

P HGDP00216 △ HGDP00167 d HGDP00491	■ HGDP00551   HGDP01014 m HGDP00864
J HGDP00218 A HGDP00169 X HGDP00655	h HGDP00552 T HGDP01015 O HGDP00865
O HGDP00222 △ HGDP00171 ○ HGDP00656	R HGDP00553 h HGDP01018 d HGDP00868
a HGDP00224 V HGDP00173 b HGDP00661	a HGDP00554   HGDP01019 B HGDP00869
Y HGDP00226 9 HGDP00175 M HGDP00662	R HGDP00555 + HGDP00832 N HGDP00870
T HGDP00228 9 HGDP00177 t HGDP00663	♦ HGDP00556 E HGDP00837 t HGDP00871
A HGDP00230 W HGDP00179 □ HGDP00664	9 HGDP00702 C HGDP00838 P HGDP00872
HGDP00232 Y HGDP00181   HGDP00787	* HGDP00703 D HGDP00843 W HGDP00873
P HGDP00234 E HGDP00183 B HGDP00788	O HGDP00704 + HGDP00845 k HGDP00875
◆ HGDP00237 Z HGDP00185 K HGDP00979	s HGDP00706 r HGDP00846 G HGDP00876
9 HGDP00239 k HGDP00187 S HGDP01027	■ HGDP00708 R HGDP00849 S HGDP00877
a HGDP00241 w HGDP00189 w HGDP00540	D HGDP00710 × HGDP00852 * HGDP01037
b HGDP00243 m HGDP00191 D HGDP00541	N HGDP00970 J HGDP00854 + HGDP01041
W HGDP00244 × HGDP00192 k HGDP00542	Z HGDP00995 A HGDP00855 O HGDP01043
△ HGDP00251 t HGDP00195 T HGDP00543	A HGDP00998 L HGDP00856 C HGDP01044
F HGDP00254 + HGDP00197 m HGDP00544	k HGDP00999 H HGDP00857 S HGDP01047
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HGDP00259	│ HGDP01003 ♦ HGDP00859 │ HGDP01051
¶ HGDP00262 n HGDP00205 △ HGDP00547	u HGDP01006 Y HGDP00860 ♦ HGDP01053
∨ HGDP00264 ○ HGDP00206 △ HGDP00548	f HGDP01010 o HGDP00861 m HGDP01055
HGDP00163 W HGDP00208 d HGDP00549	M HGDP01012 Z HGDP00862 i HGDP01056
m HGDP00165 U HGDP00210 □ HGDP00550	9 HGDP01013 U HGDP00863 ○ HGDP01057

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u HGDP01059 X HGDP00905 \$ HGDP00924	A HGDP00457 Z HGDP00456 B HGDP00780
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f HGDP00994 W HGDP00908 ♦ HGDP00927	e HGDP00460 M HGDP00467 n HGDP00783
N HGDP01028 D HGDP00909 G HGDP00928	□ HGDP00461 j HGDP00471 Z HGDP00784
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J HGDP01031 S HGDP00911 Z HGDP00930	C HGDP00465 n HGDP00476 b HGDP00786
t HGDP01033 △ HGDP00912 R HGDP00931	P HGDP00466 L HGDP00478 J HGDP00811
Q HGDP01034	F HGDP00469 r HGDP00982 ♦ HGDP00812
□ HGDP01035   HGDP00914 ○ HGDP00933	e HGDP00470 ♦ HGDP00984 X HGDP00813
■ HGDP01405 ○ HGDP00915 n HGDP00934	J HGDP00472 × HGDP01081 + HGDP00814
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j HGDP01408 h HGDP00918 Z HGDP00936	B HGDP00475 Q HGDP00992 h HGDP00817
HGDP01411	♦ HGDP00479 V HGDP01029 E HGDP00818
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E HGDP01414 G HGDP01201 X HGDP00939	j HGDP00986 € HGDP01036 ○ HGDP00820
HGDP01415	N HGDP01086 h HGDP00774 n HGDP00821
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j HGDP01418 △ HGDP01285 ▽ HGDP00943	a HGDP01094 J HGDP00777 × HGDP00972
C HGDP01419 A HGDP01286 M HGDP00454	○ HGDP00449   HGDP00778 ∨ HGDP00973

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Z HGDP00975 L HGDP01313 ○ HGDP01317	P HGDP01207 × HGDP01102 C HGDP01179
○ HGDP00976   HGDP01314 F HGDP01318	i HGDP01208 P HGDP01103 V HGDP01180
J HGDP00977 ○ HGDP01315 * HGDP01319	U HGDP01209 i HGDP01104 n HGDP01181
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C HGDP01307 P HGDP01237 H HGDP01197	○ HGDP01096 V HGDP01246 G HGDP01229
9 HGDP01308 R HGDP01238 W HGDP01198	C HGDP01097 ▼ HGDP01247 □ HGDP01230
L HGDP01309 9 HGDP01239 9 HGDP01203	H HGDP01098 k HGDP01248 × HGDP01231
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T HGDP01311 d HGDP01241 S HGDP01205	♦ HGDP01100   HGDP01250 t HGDP01337

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g	HGDP01339	Ν	HGDP00717		HGDP00766	l
Н	HGDP01340	В	HGDP00719	Ε	HGDP00767	l
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Ö	HGDP01342	t.	HGDP00721	D	HGDP00769	l
c.		c	HGDP00747	D	HGDP00771	l
*		Д	HGDP00748	C	HGDP00772	l
		A		0		ı
0	HGDP01297	U.	HGDP00749	Р	HGDP00773	I
h	HGDP01298	L	HGDP00750	S	HGDP00790	ı
h	HGDP01299	R	HGDP00751	d	HGDP00791	ı
Χ	HGDP01300	С	HGDP00752	j	HGDP00828	ı
t	HGDP01301	R	HGDP00753	n	HGDP00945	I
Ρ	HGDP01302	р	HGDP00755	1	HGDP00946	ı
n	HGDP01303 \	Ν	HGDP00756	G	HGDP00947	ı
0	HGDP01304	f	HGDP00757	r	HGDP00948	ı
a	HGDP01305	Н	HGDP00758	j	HGDP00949	ı
ï	HGDP01306	Υ	HGDP00759	Ť	HGDP00950	ı
F	HGDP00711	0	HGDP00760	V	HGDP00951	ı
O		X	HGDP00761	i	HGDP00952	Į
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HGDP00956
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 HGDP00962
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* HGDP00966
× HGDP00967
A HGDP00968
▼ HGDP00969
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## **Summary information**

Date: Fri Jun 24 16:24:30 2016
ASD-file:
tmp/HGDP\_hg19\_one\_allele.asd
Legend-file:
tmp/HGDP\_hg19\_one\_allele.legend.csv
Plot in:
HGDP\_hg19\_one\_allele.pdf

Reference panel

Reference panel

644088

Number of markers: 644088

If you use this tool for a publication please cite

Malaspinas A–S, Tange O, Moreno–Mayar JV, Rasmussen M, DeGiorgio M, Wang Y, et al. bammds: a tool for assessing the ancestry of low–depth whole–genome data using multidimensional scaling (MDS). Bioinformatics. 2014 Jun 28;btu410.