# **?Allohippus sp. from NS zone**

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**Mandible**
From Koobi Fora NS zone there is one incomplete ramus : KNM ER 5361 (left side, associated with an upper cheek series, collected in Area 100) that belonged to an equid smaller than *A. koobiforensis* (Figure 9).
Fig. 9
The muzzle of the mandible is long (134 mm) and narrow (53 mm) and would correspond to a cranium muzzle 148 mm long and 60.5 mm wide.
Incisors are worn. Closed infundibula are visible on I1 and I2. The infundibulum is open on the I3.
The proportions are similar to *A. stenonis vireti* of Saint-Vallier and the extant *E. grevyi* (Fig. 10) and are no help in referring the specimen to *Allohippus* rather than to *Equus*.
Fig. 10

**Associated Upper and Lower Cheek teeth**
KNM ER 5361, NS zone, (Fig. 11).
Fig. 11
The lower series KNM ER 5361 of the mandible mentioned above is associated to an upper series.

**Upper Cheek Teeth**
Specimens collected in Areas 100 (upper series KNM ER 5361), 102 (three associated teeth KNM ER 5519), and 105 (KNM ER 1258, 1271, and 2681), have much shorter protocones than *A. koobiforensis*, their lingual face is usually flat or even convex, the post protoconal grooves are shallow (Fig. 12). The enamel pattern is typical of *Allohippus*.
Fig. 12

**Lower Cheek teeth**
Like KNM ER 5361, the series KNM ER 1518 (very worn), and 5360 were collected in NS Zone (Fig. 13).
The P2 are short and blunt in KNM ER 1518 and 5361, longer and pointed in KNM ER 5360. The enamel is not very plicated and there are no plis caballinid. Metastylids are pointed. Vestibular grooves are deep. The teeth could belong to *Allohippus* as well as to *Equus*.
Fig. 13

**Size correlations of limb bones and cranial dimensions**
Instead of the cranial basilar length for which there is no information, I use the length of the upper cheek teeth series.
Fig. 14
Figure 14 suggests (again) that the Omo G metacarpal would fit well with *A. koobiforensis*and also that KNM ER 1276 metacarpal would fit well with the series KNM ER 5361 referred to ?*Allohippus* sp.

**Associated Limb bones from NS**
Fragments of Humerus, Radius, Metacarpal and Ph1 anterior KNM ER 1276 (Fig. 15).
Unfortunately the degree of the MC gracility is unknown. The rest of proportions on the Simpson’s Ratio Diagram (Fig. 10) resemble those of *Allohippus stenonis stenonis* of Valdarno and *Allohippus mygdoniensis* of Gerakarou which are, however, smaller.
Fig. 15
Fig. 16
The Ph1A associated to KNM ER 1276 (Fig. 9, Fig. 17) is gracile and resembles phalanges of much younger Ass-like *Equus* from Sidi Bou Knabel or Epipaleolithic of Taforalt (Morocco).
Fig. 17

**Metatarsals**
In Area 100, were found two MT III. KNM ER 4052 is damaged. KNM ER 5358 is perfectly preserved (Fig. 18).
Fig. 18
The articular width of both fits well with the cheek teeth length of KNM ER 5361 (Fig. 19) ; the same is true for a third specimen, KNM ER 1275 (Area 105, Ma zone).
Fig. 19
This smaller MT (Fig. 20, 27) has nearly the same proportions : slenderness, width of proximal and distal epiphyses (measures 3, 5, 10).
Fig. 20
These proportions are similar to some slender *Allohippus* like *A. mygdoniensis* of Gerakarou, and also to extant Wild Asses (Fig. 21).
Fig. 21