

## 1: Horse Evolution Is Back on the Charts | CEH

*Equidae (sometimes known as the horse family) is the taxonomic family of horses and related animals, including the extant horses, donkeys, and zebras, and many other species known only from fossils. All extant species are in the genus Equus.*

B, of Rhinoceros *Rhinoceros sumatrensis*. C, of Horse *Equus caballus*. These Ungulates derive their name, which is that given by the late Sir Richard Owen, from the fact that the middle digit of the hand and foot is pre-eminent. As will be seen from Fig. In this the present group contrasts with the Artiodactyla, where the axis is not "mesaxonic," but where there are two digits, on either side of the axis, which are symmetrical with each other. This arrangement of the limbs is highly characteristic, but appears to be not quite universal. In the Titanotheres, which form a group of the Perissodactyles, the fore-limbs are not quite accurately mesaxonic. Nor on the other hand can all Ungulates which show the Perissodactyle condition be safely included in the present group. The ancient Condylarthra and the Litopterna show precisely the same state of affairs. But other features in their organisation lead to their separation from the Perissodactyles, of which, however, the Condylarthra are probably ancestors. The Litopterna on the other hand, which possess even one-toed members like *Equus*, are believed to represent a case of parallelism in development. The number of functional toes varies from four to one. In the ankle joint the astragalus either does not, or does only to a comparatively slight extent, articulate with the cuboid as well as with the navicular bone. Moreover the fibula when present does not as a rule articulate with the calcaneum. In the opposed group of Artiodactyles the precise reverse of these conditions obtains. It is usually stated as part of the definition of this group that they do not possess horns of the type of those met with in the Cervicornia and Cavicornia. But the strong bony bosses on the skull of many Titanotheres, so curiously reminiscent of those of the not nearly related *Dinoceras* and *Protoceras*, may well have supported horns of the Ox and Antelope pattern. The teeth of the Perissodactyles are lophodont, more rarely bunodont. The selenodont Artiodactyle form of molar is not met with. The dental formula, moreover, is at least near the complete one, the more modern forms as usual being the more deficient in numbers of teeth. The dorso-lumbar vertebrae are as a rule twenty-three; but the extinct Titanotheres are again an exception; for, at least in *Titanotherium*, there are but twenty of these vertebrae—an Artiodactyle character. The femur has a third trochanter. There are so few recent Perissodactyles that an enumeration of the distinguishing characters of the viscera may very probably be useless for purposes of classification. But the living genera at any rate are to be separated from the living Artiodactyles by the invariable simplicity of the stomach coupled with a very large and sacculated caecum. The liver is simple and not much broken up into lobes, and the gall-bladder is always absent. The brain is well convoluted. The teats are in the inguinal region. The placenta in this group is of the diffused kind. The living Perissodactyles belong to three types only, indeed to three genera only in the estimation of most, which are the Horses, Tapirs, and Rhinoceroses. But taking into account the extinct forms, they may be divided primarily according to Professor Osborn into the four following groups: It is conceivable, according to the same writer, that the Chalicotheres here treated of as a separate sub-order, Ancylopoda should be added to the Perissodactyle series. The molar teeth are hypselodont, and the premolars, with the exception of the first, resemble the molars in their pattern. The orbit is completely surrounded by bone. The incisors are chisel-shaped, with a pit on the free surface. The canines are rudimentary if present. The radius and ulna are fused, as are the tibia and fibula. Although for the sake of uniformity a family, *Equidae*, is here separated from its allies, it is quite impossible owing to the full state of our knowledge of this group to draw a really hard-and-fast line between this family Fig. After Flower and Lydekker. We shall deal presently with the conjectured pedigree of the Horse, which naturally involves that family, and which presents an unbroken series from four-toed Perissodactyles to the present one-toed Horse, the various bones and teeth becoming modified in the course of the descent "with the regularity of clockwork. This is irrational and regrettable, but necessary for practical purposes, if we are to continue the plan of defining the various families of Mammalia. The genus *Equus* [1] contains not only the Horse, but the Asses and Zebras. The genus is to be distinguished as regards external characters by the following features: There are no horns upon the forehead or elsewhere;

the fore-limbs or both pairs have a callous pad upon the inside, which is possibly to be looked upon as an aborted gland, possibly originally of use as secreting some odorous substance calculated to enable strayed members of the herd to regain their companions. The terminal phalanx of each of the functionally single digits is enclosed in a large horny hoof. The main internal features of structure which divide this genus of Perissodactyles from the Rhinoceros or the Tapir, or from both, are: They are popularly known as "tusks" or "tushes. As there are three molars, the present genus has the "typical" number of the Eutherian dentition, i. In the skull the orbit is "as it is not in Tapirs and Rhinoceroses" completely encircled by bone. There is but one functional finger and toe on each hand Fig. There are even occasionally traces of digit number two. The hairy covering of the tail is more abundant, as is also the mane. The head too is proportionately smaller, and the general contour more graceful. Though Zebra markings are not usual upon E. It was as a matter of fact thought to be an example of that rather doubtfully-occurring phenomenon, "telegony. The animal was the offspring of a mare that had previously produced to a male Quagga a hybrid foal. Afterwards a second foal was produced by the same mare to an Arab sire. This foal, the one in question, was striped, and hence was thought to be an example of male prepotency. But instances are known of unquestioned Horses which show the same stripes, such as a Norway pony which had not even seen a Zebra! A last remnant of the naked palm of the hand and sole of the foot is left in the shape of a small bare area, smaller in the Horse than in the Asses, known technically as the "ergot," the term being that of the French veterinarians. As already mentioned, the Horse differs from the Asses and Zebras in the fact that the hind-limbs have callosities on the inner side. They are known as "chestnuts," and their nature has been much disputed. It has been suggested that they are the last rudiment of a vanished toe; but in all probability they are, as already suggested, traces of glandular structures, which are common, upon the limbs in many animals see above, p. It is a singular fact that there are apparently no wild Horses of this species. The case is curiously analogous to that of the Camel, which also is only known as feral or domesticated. Why the Horse should have become extinct as a wild animal, considering that when it does run wild it can thrive abundantly, is impossible to understand. Flower thinks [3] that "the nearest approach to truly wild horses existing at present are the so-called Tarpan, which occur in the Steppe country north of the sea of Azov between the river Dnieper and the Caspian. They are described as being of small size, dun colour, with short mane and rounded obtuse nose. In favour, however, of their possibly being wild and indigenous European Horses, may be mentioned the fact that their general build and appearance is highly suggestive of the wild Horses sketched by primitive man upon ivory. A really wild Horse, and possibly the ancestor of the European domestic Horse, is E. This animal has been believed to be a mule between the Wild Ass and a feral Horse; but if a distinct form, and probability seems to urge that view, it is interesting as breaking down the distinctions between Horses and Asses. The species possesses the four callosities of the Horse, but has a poorer mane and an asinine tail. There is no question that the Horse has been a domestic animal for very many centuries. Hieroglyphics appear to show that the Egyptians had not originally domesticated the Horse; it seems to have been first introduced among them by the Hyksos or Shepherd Kings. In Western Europe the date of the introduction of the Horse seems to have been during the bronze epoch. Lord Avebury [5] has pointed out that out of eighteen cases of graves in which the remains of Horse were found, twelve contained metal implements, i. This does not of course prove that the Horse was domesticated at that period, but it throws doubt upon the earlier occurrence of the Horse in abundance. The Horse, however, does occur on the Continent associated with the remains of man during the Quaternary period. Cuyet and Alix enumerate between fifty and sixty domesticated races of Horse, not counting the supposed wild varieties which have been already referred to. These may be further subdivided; for instance, under the race "pony" we may distinguish the Irish, Scotch, and Shetland varieties, all of which, however, according to Sanson, have originated in Ireland. They are used, remark the authors above quoted, "par les jeunes filles des lords pour leurs promenades. The Asses and Zebras differ from the Horse in the characters mentioned under the description of *Equus caballus*. In addition to these may be pointed out a feature to which attention has been directed by Mr. Opinions as to the number of species of Asses differ. On the most liberal estimate there are three Asiatic and two African species. It is of a uniform yellowish, "desert" colour, with a dark stripe along the middle of the back, and is found in Persia, the Punjab, and the country of Cutch. The creature is of great

swiftness; it has been stated to be untameable, but Mr. Tegetmeier makes the absolutely opposite statement that the Ass occasionally "becomes so tame as to be troublesome"! The Syrian Wild Ass, E. In the first place it has a more limited and a different distribution; it is confined to the high tablelands of Thibet at an elevation of 15, feet and upwards. In correlation with this habitat it has a thicker and more "furry" coat, which is, moreover, of a darker shade than that of the Onager. This coat is shed in the summer, and replaced by one which is not so dark in hue. It is an interesting fact that the African Wild Asses approach to the zebra type in having at least traces of stripings. There are apparently two species. The best known, Fig. It has a dorsal longitudinal stripe, and another across the shoulderâ€”in legend the marks of the Saviour. The matter of the name of this Ass seems difficult to decide. It has been called also E. It has been observed that this animal has a great aversion to water, and a delight in rolling in the dustâ€”both of which characteristics argue a desert existence. But on the other hand the Kiang will plunge boldly into streams, yet it would seem to be the descendant of a purely desert form.

### 2: The origin and influence of the thoroughbred horse, (Book, ) [www.enganchecubano.com]

*The decision also temporarily banned the importation of Equidae family from the Republic of Panama due to inflammation of the brain and spinal cord disease as the import of all ruminants from Slovenia banned due to the spread of mad cow disease, Bastaki added.*

Physical characteristics[ edit ] From left to right: Their slender legs support their weight on one digit which evolved from the middle digits. The penis of the male is vascular and lacks a bone baculum. Equines are adapted for running and traveling over long distances. Their dentition is adapted for grazing ; they have large incisors that clip grass blades and highly crowned, ridged molars well suited for grinding. Males have spade-shaped canines "tushes" , which can be used as weapons in fighting. Equines have fairly good senses, particularly their eyesight. Their moderately long, erect ears are movable and can locate the source of a sound. These insects appear to be less attracted to striped coats, and compared to other wild equines, zebras live in areas with the highest fly activity. The plains zebra lives in lush grasslands and savannas of Eastern and Southern Africa, while the mountain zebra inhabits mountainous areas of southwest Africa. The other equine species tend to occupy more arid environments with more scattered vegetation. In certain parts of the world, populations of feral horses and feral donkeys exist, which are descended from domesticated animals that were released or escaped into the wild. Compared to ruminants , equines have a simpler and less efficient digestive system. Nevertheless, they can subsist on lower-quality vegetation. After food is passed through the stomach, it enters the sac-like cecum , where cellulose is broken down by micro-organisms. Fermentation is quicker in equines than in ruminants - 30-45 hours for a horse compared to 70-80 hours for cattle. During the day, they sleep standing up, while at night they lie down. They regularly rub against trees, rocks, and other objects and roll in around in dust for protection against flies and irritation. Except the mountain zebra, wild equines can roll over completely. Horses, plains zebras, and mountain zebras live in stable, closed family groups or harems consisting of one adult male, several females, and their offspring. These groups have their own home ranges , which overlap and they tend to be nomadic. The stability of the group remains even when the family stallion dies or is displaced. Plains zebra groups gather into large herds and may create temporarily stable subgroups within a herd, allowing individuals to interact with those outside their group. Among harem-holding species, this behavior has only otherwise been observed in primates such as the gelada and the hamadryas baboon. Females of harem species benefit as males give them more time for feeding, protection for their young, and protection from predators and harassment by outside males. Among females in a harem, a linear dominance hierarchy exists based on the time at which they join the group. Harems travel in a consistent filing order with the high-ranking mares and their offspring leading the groups followed by the next-highest ranking mare and her offspring, and so on. The family stallion takes up the rear. Social grooming which involves individuals rubbing their heads against each other and nipping with the incisors and lips is important for easing aggression and maintaining social bonds and status. Young of both sexes leave their natal groups as they mature; females are usually abducted by outside males to be included as permanent members of their harems. These species live in habitats with sparser resources and standing water, and grazing areas may be separated. Groups of lactating females are able to remain in groups with nonlactating ones and usually gather at foraging areas. The most dominant males establish territories near watering holes, where more sexually receptive females gather. Subdominants have territories farther away, near foraging areas. Mares may wander through several territories, but remain in one when they have young. Staying in a territory offers a female protection from harassment by outside males, as well as access to a renewable resource. Some feral populations of horses exhibit features of both the harem and territorial social systems. These are typically young males that are not yet ready to establish a harem or territory. With the plains zebra, the males in a bachelor group have strong bonds and have a linear dominance hierarchy. Fights between males usually occur over estrous females and involve biting and kicking. They then may rub and press their shoulders against each other and rest their heads on one another. This greeting is usually performed among harem or territorial males or among bachelor males playing. Loud snorting is associated with alarm. Squealing is usually made when in pain, but bachelors also

squeal while play fighting. Equines also communicate with visual displays, and the flexibility of their lips allows them to make complex facial expressions. Visual displays also incorporate the positions of the head, ears, and tail. An equine may signal an intention to kick by laying back its ears and sometimes lashing the tail. Flattened ears, bared teeth, and abrupt movement of the heads may be used as threatening gestures, particularly among stallions. In addition, estrous females will stand with their hind legs spread and raise their tails when in the presence of a male. Length of gestation varies by species; it is roughly 11 to 13 months, and most mares come into estrus again within a few days after foaling, depending on conditions. Within a few weeks, foals attempt to graze, but may continue to nurse for 8–13 months. The group forms a protective front with the foals in the center and the stallion will rush at predators that come too close. Of the caballine equines of E. The animals were used to help cope with the increased aridity of the Sahara and the Horn of Africa. Genetic evidence finds that the donkey was domesticated twice based on two distinct mitochondrial DNA haplogroups. It also points to a single ancestor, the Nubian wild ass. Threats to wild equines include habitat destruction and conflicts with local people and livestock. Since the 20th century, wild equines have been decimated over many of their former ranges and their populations scattered. In recent centuries, two subspecies, the quagga and the tarpan, became extinct. However, following successful captive breeding, it has been reintroduced in Mongolia. For example, in Australia, they are considered a non-native invasive species, often viewed as pests, though are also considered to have some cultural and economic value. New Mexico, the United States Supreme Court ruled that the animals so designated were, as a matter of law, wildlife.

### 3: European eocene Equidae (Perissodactyla) (eBook, ) [www.enganchecubano.com]

*"THE EXISTING equidae. Hark! I hear horses. Macbeth, in. 8. THE early ancestors of the horse which first crossed from the western hemisphere into Asia have.*

As many of you know, equidae have and still do play a vital role in many EU Member States. Sometimes this is out of necessity, as forms of transportation and agricultural assistance, but other newer roles have also emerged such as in research, therapy and rehabilitation. For example, in Bristol, in my constituency in the UK, Spiritus Equis offers equine-assisted therapy to help young people with substance misuse and offending behaviour. Equidae "horses in particular" are also prominent in the betting and sporting world, and for many owners, myself included, equidae are kept for leisure and more recreational purposes. Through such versatility, equidae have come to possess vast economic potential. However, despite the varied roles, close relationship and at times dependency we share with these animals, in too many cases equidae are faced with a number of severe welfare concerns that serve to adversely impact the entire sector. Such concerns include neglect, overwork and inappropriate living conditions. These problems can be found across the breadth of the equid sector and occur due to a multitude of reasons: With this report I believe that we have a golden opportunity to not only substantially improve the lives of the seven million equidae currently living within the EU, but also by better caring for these animals we have a chance to unlock the full economic potential of this sector and provide a much-needed boost to the rural economy. It is a win-win for all involved. I would like to emphasise at this point that this report does not intend to call for additional legislation but rather to improve existing provisions, particularly their enforcement. In fact, equidae are broadly covered by a number of legislative acts pertaining to their health and welfare, and whilst better implementation and enforcement of existing law would help remedy some of these problems, it is not clear within the scope of the existing treaties where added European legislation could, or should, add value. Rather, I firmly believe "and this is a belief that fundamentally shapes the nature of this report" that value can be added by tackling ignorance and by encouraging and facilitating the spread of best practice and good guidance. This will provide both commercial and recreational equidae owners with the tools and knowledge to better meet the needs of their animals. For example, knowledge transfer schemes as we see in Ireland are one tool Member States could utilise to share best practices, as well as business models and to foster innovation and new ideas. This is especially important in light of the added emphasis on the need "and, in fact, urgency" to become more environmentally-friendly, a development that the equid sector is not immune to. Such schemes could therefore safeguard the welfare needs of equidae while, at the same time, ensure businesses are viable and are able to adapt to changes in regulation elsewhere. The development of animal welfare indicators will provide the guidance needed to make compliance and consistent enforcement more achievable. An increased number of educational resources will tackle ignorance and thereby correct the current lack of understanding surrounding the care and ownership of equidae. The establishment of animal welfare reference centres will provide a much-needed avenue for the dissemination of guidance. A recommitment from the Commission to the development of a European charter for sustainable and responsible tourism would also be hugely beneficial. Tourists would be empowered to make choices, which will not only reward those enterprises which properly care for their equidae but will also inform and provide peace of mind. I would like to take this opportunity to thank the shadow for all their support and constructive contributions and to thank Eurogroup for Animals who have been a valuable source of information throughout the process.

### 4: www.enganchecubano.com - Equidae Office

*Family Equidae Horses, asses, and zebras The equids are the most numerous and widely-distributed group of modern perissodactyls, although only one genus and seven species survive to the present day (an eighth, Equus quagga, was lost to extinction in ).*



### 5: Bill Text - AB Food and agriculture.

*Equus is a genus of mammals in the family Equidae, which includes horses, donkeys, and www.enganchecubano.com Equidae, Equus is the only recognized extant genus, comprising seven living species.*

### 6: Cambridge Natural History Mammalia/Chapter X - Wikisource, the free online library

*Introduction: The ancestors of the EquidaeThe existing EquidaeThe horses of prehistoric and historic timesThe origin of the Libyan horseThe development of equitationAddenda.*

### 7: Details - The origin and influence of the thoroughbred horse / - Biodiversity Heritage Library

*Equidae Office. The main activities of the Equidae Office regard the managing and the coordination, all over the nation area, of the Anagraphic Register of equine animals, the Genealogical Books and the Anagraphic Register of the equine and asinine breeds at limited distribution.*

### 8: 3rd Meeting of the EU Platform on Animal Welfare | EU Enforcement Network

*Contents: Introduction: The ancestors of the Equidae -- The existing Equidae -- The horses of prehistoric and historic times -- The origin of the Libyan horse -- The development of equitation -- Addenda.*

### 9: Debates - Monday, 13 March - Responsible ownership and care of equidae (short presentation)

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*Economics the basics tony cleaver Representing O.J. Murder, Criminal Justice and Mass Culture Leisler papers, 1689-1691 Case Studies Sampler for Beginning Teachers Disaster operations self-study guide Pt. 2. Geometry: first principles of commensuration . pt. 3. Classification of geometric figures and form Diego y los dinosaurios (Diegos Great Dinosaur Rescue (Go, Diego, Go!) Experiment in crime Medien Kunst Aktion/media Art Action Affirmation of God/a World Treasury of Quotations About the Meaning of the Divine Biological Science, Vol 1, Cell/Genetics King arthur flour book System configuration management Sas training material The ultimate mousse cookbook Plans were laid : making Pink flag Diary Of John Evelyn V2 Secondary English project Our land, our time Wrap insurance application editable Determinants of public welfare policies Canonization of a myth Modern nationalism and religion. John Calvin the Man and His Work Companions in spirit The managed care answer book for mental health professionals Assistance to Transition Searching for Krisztina How the Irish Invented Slang Penguins, whalers, and sealers Anointed Kabbalist Lucretius De rerum natura IV Annapurna, a womans place On The Great Plains 1. What Are Social Networks? Elizabeth Cady Stanton The Declaration of Sentiments Measure theory donald cohn Task 1.3: identify community assets The Morphology of the Tigre Noun (London Oriental Series) Physical properties of cycloalkanes*