

ART. VII. ON INTRODUCED SPECIES OF NOVA SCOTIA. BY J.
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MAN in his wants has seized upon different species of animals, has domesticated them to his use, and in doing this has so modified their outward figure, their color, and their habits, that it has become almost impossible to trace the different wild stocks to which their progenitors belonged. It is a matter of controversy, perhaps never to be settled, whether the varieties of dog now existing have descended from one, two, three, or more primal stocks. Domesticated individuals are continually escaping from man's control, and founding races of their own, which thus are trying back again when left to their mutual selection, as it were, to refound the old primal stock from which they were in remote ages derived. These new races are called feral, to distinguish them from the original wild stock. Whenever such a process is going on, and its various phenomena noted, it will be found to be of the highest importance in solving many of the questions of natural selection, original species, species altered by progression, or by circumstances, which are vexing the present day.

In the following paper, then, I purpose to draw the attention of the Society to the breed of wild Ponies, which, originally turned loose on Sable Island (lying seaward of Nova Scotia, about ninety miles south-east), have been left to themselves, perhaps, for one hundred and fifty to two hundred years,—to note carefully their form, color, habits, and to compare them with the present wild stock, now existing solely in Tartary, with the several feral breeds in America and Asia, and with the modern artificial races now existing among men. I have been led to do this, the rather, because some remarks made formerly on this subject, by myself, have been noticed in some of the works of the present day, and inferences drawn from them.

From proclamations still extant of the then Governors of Nova Scotia, we are certain these animals existed about one hundred and fifty years ago. We may assume that they sprung from two or more individuals, perhaps one stallion and several mares, and that these were the ordinary New England stock. The difficulty of

procuring and landing them at that period, and the fact of Le Mercier, who transported them, being from New England, are proofs sufficient of these facts. One hundred and fifty years after this event, I noted with great interest their descendants. I found them about four hundred in number, divided into about six herds, or gangs (so called), each gang headed by an old male, who was sufficiently conspicuous by his masses of mane and tail. Each herd had its separate feeding ground, to which the individuals composing it seemed to be equally attached, as to their leader. On driving over the Island, and mixing all herds, promiscuously, as we once did, by the next morning they had returned to their separate feeding grounds, some of them travelling ten or twelve miles during the night. On riding towards them the herd was seen grazing at the distance of a mile, with several outlying parties. The leader was observed repeatedly to drive these outlying mares and young horses into the general herd, who all now began a general retreat at a slow trot, with the exception of the old stallion, who faced the approaching party, passing backwards and forwards, frequently stopping and tossing back the mane from his eyes. The resemblance to a convoy crowding all sail to leeward, and a frigate in stays awaiting the enemy, was perfect. On pressing him, however, with our riding horses, he joined his herd now in a gallop, but keeping always in the rear. His instinct taught him the unequal match with man, but the air of leadership was unmistakable. They often fight among themselves, one stallion visiting the herd of a second. I saw a horse nearly disabled in one of these encounters. The young horses, between two and three years old, are driven out of the herd by the leader. I watched one, hour after hour, driving a young grey colt with the most furious bites, to a distance. The young horses live in small bands on the outskirts of the herd, and sometimes an old or disabled mare, unable to keep up, drops behind; she is an object of the greatest attraction to them, soon produces foals, and thus a nucleus of a new herd is formed.

I never saw one lying down to rest. They seem to sleep standing. They persistingly refuse the shelter of a stable, or the society of man, always moving from him. In the roughest weather escaping from the stable they would put a mile, or two between them

and it, before they stopped to graze; in this respect differing widely from the semi-wild cattle, which besieged the barn doors with their lowing during the winter. On concealing myself in the coarse grass to watch them, I observed the whole herd to move forward, grazing as they slowly moved. I have been thus minute in order to compare their habits with the only original wild stock that have never been tamed, now existing in the world, according to Col. Hamilton Smith—(no mean authority). This primal stock called “Tarpans,”* and the “Tarpany,” exist in Tartary, extending to China. When describing the form and color of the Sable Island poney, I shall refer again to them.

From these quotations, one cannot fail to see that in one hundred and fifty years these animals have returned, almost literally, to the habits of the old primal stock, never yet subdued by man. The term “Sultan Stallion” seems singularly appropriate to the “master horse,” that we have seen sweeping between us and his mares, or cruelly banishing his colts, some thousands of years after the epithet was applied.

We will now accurately describe his form, and compare it with the “Tarpans,” † with the several feral or escaped breeds of the

* “The Tarpany form herds of several hundred, subdivided into smaller troops, each headed by a stallion; the stallions leading and occasionally going round their troop. Young stallions are often seen at a distance, and single, because they are expelled by the older until they can form a troop of young mares of their own. The sultan-stallion is not however suffered to retain the chief authority for more than one season without opposition from others. The sultan-stallion of a great herd was anciently an object of research for the chiefs of armies, who endeavoured to catch them, and then make them their chargers.”—*Col. Hamilton Smith.*

† “Real tarpans are not larger than ordinary mules, the head small, forehead greatly arched, ears far back, either long or short, eyes small and malignant, chin and muzzle beset with bristles; the neck rather thin, crested with a thick rugged mane, which like the tail is black,—the croup as high as the withers.

The other wild horses of Asia, such as the white woolly animal of the Karakoom, is about fourteen hands high, with a large head, small eyes and ears, thick muzzle, short and thin neck joining the head at a considerable angle, mane short, and ragged, the tail not very abundant, shoulder low and vertical.”—*Col. Hamilton Smith.*

Varro, Strabo, and all the ancients in relating of wild horses, refer to a sturdy form of ponies, with broad foreheads, strong lower jaws, heavy manes, great forelock, long bushy tails, robust bodies, and strong limbs.

“It was a gaunt ugly animal, with a large head and bristly mouth,—small, pale, often blue eyes,—a haggard and abundant mane and tail,—hips high,—legs nodose,—feet broad and flat, hidden in an immense quantity of long hair about the fetlocks.”—*Col. Hamilton Smith.*

Certainly this is a very good description of the Sable Island poney; the pale blue eye being what is now called the “wall-eye,” is common among them.

world, and with the ordinary artificial races of the present day. He may be described as low, from twelve to thirteen hands, scarcely approaching fourteen hands; head large and ill-set on, with usually the round Roman nose and thick jowl; the ear small, short, and square at the top; crest very thick and heavy in the male; neck cock-thrappled, or swelling out in front; withers very low; quarters short and sloping; legs very strong and robust, with thick upright pasterns; the eye not large or bright; the mouth very short; the forelock and mane abundant; tail also reaching on the mane nearly to the ground, and covering the nostrils; the weight of the mane often pulls the crest over, so that, especially in the mares, the neck seems ewe-necked; the fore toe usually turned outward, or paddle-footed; and the withers seemingly lower than the rump or quarters, although they are exceedingly short and sloping; the coat is, during winter, long and shaggy, especially under the chin and on the legs. Thus, the descendants of the first stock, in one hundred and fifty years, have become a race of large headed, low withered ponies, with tail set on very low into a very short quarter; a cock-thrappled neck, and a short square ear. As regards colour, their changes are so important that I reserve it for a separate section, and proceed to compare their outward form with the "Tarpany."

We will now compare them with the most ancient form of domesticated horses extant, carrying us back to the days of Nineveh. Comparing him with the thorough bred horse of the present day, we find the changes more striking, but better seen by comparison of an outline figure of Ellis, a fine English racer, by Langar, out of Olivia, by Sir Oliver.*

Thus then, those ponies left to themselves have returned in some degree to the tarpany, and woolly wild horse of Tartary, in form, having in common the short thick neck, the shaggy beard, rough coat and stout hairy legs, the small stature, the low withers; but the tarpany, from the figure, has a much better croup and quarter, and does not possess the abundant tail and mane, his tail barely reaching to the hock, and his mane short and hagged. Compared with the figure of the most ancient domesticated horse, from the

* The original paper was accompanied by a series of drawings.

sculptures of Nineveh,* they have reproduced, spontaneously, if we may so speak, but no doubt by a fixed law of nature, pre-existing created forms, died out with the race of men who from their backs gained universal empire. But from Frank Forrester's poetic and eloquent description, we must turn and remind you of the large head, thick crests, cock-thrappled neck ("like a game cock when he crows," says Xenophon), abundant tail and mane, and low stature, common to both. The Elgin marbles give the same form of horse in the battles of the Centaurs.

Comparing him with the present thorough bred, the entire divergence of head, neck, crest, withers, and croup and quarters, tail and mane, are at the greatest extreme. That the low withers and low setting on of the tail is not from climate and exposure altogether, but in accordance with some fixed law, I quote Frank Forrester (p. 116). I also give a figure of a Mustang, taken from one of the illustrated papers of the day, but evidently a portrait from its spirit and excellence. I may add, those sketches are all traced from the original prints, so as to leave nothing to my imagination. The few Barbary horses that I have seen had this peculiarity very apparent, especially a black barb imported from Africa by Mr. THOS. R. GRASSIE, of Halifax, a most noble animal, but having this peculiarity very marked, and transmitting it to his get. According to Capt. Shakespeare, the tendency of the pure Arabian to a low croup and tail is so strong, that the breeders resort to artificial means to obtain that high carriage of tail usually

* "In all their sculptures he is represented as a remarkably high crested, large headed, heavy shouldered animal,—rather long bodied, powerfully limbed, his neck clothed with volumes of shaggy mane,—and his tail coarse and abundant. He therefore had nothing of the modern Arab in his form and character."—*"Horses of America": Henry William Herbert.*

† "Judging from the Elgin marbles, the next sculptures in antiquity to those of Nineveh, the Greek horse was not above fourteen and a half hands high, and had the short stocky ridged shapes of the galloway or cob. They are all what are vulgarly called cock-thrappled, that is, having the wind-pipe and fore-neck above its insertion in the chest projected like the same parts of a game cock when crowing; and with their hagged manes, short round barrels, heavy joints, short stiff pasterns, look like what they doubtless were, a large breed of clever active galloways."—*Ib.*

† "On my first arrival in America, I was particularly struck by the fact that the American horse, as compared with the English, was remarkable for what is called the goose rump, the American racer standing very much higher behind and lower before than his English compeer, and this difference still more conspicuous in roadsters."—*Ib.*

considered the best mark of pure blood. (See "*Field*" newspaper, October 17, 1863, p. 383.) Thus the tendency to low croups, and ill set-on tails, is common to America, Africa, and Arabia, and only to be resisted by the most careful and artificial crossings.

We come next to the subject of colour. But in order to comprehend this, we must premise a short account of the different colours extant from remote antiquity.

The *bays*, including the *browns*, all having black manes and tails, and extremities in common, are the first and most numerous colours.

The *chestnuts* light or dark, including the sorrel, all having the extremities of the same colour with the body, and the manes and tails light, are the second variety.

The *duns*, including the mouse colour, or bluish variety, many having dark stripes down the back, and some of the Isabella duns, with black stripes about the legs as well as on the withers and line of back, seem to belong to this variety. They are curious as showing remote affinities with the hippotigrine group of zebras and quaggas, in the latter; whilst the blue mouse colour points to the asinine group.

There has always existed from remote antiquity a *black* race, yet of all colours it dies out the soonest.

A pure *white*—the foal, born white, exists still in a wild state, and has always been of the highest consideration from remote ages, and may be considered a true variety.

Not so the *greys*, including the dapple, the iron-grey, the flea-bitten, and the roan. All these are born dark, become lighter in adult life, and pure white in old age; and scarce can be called a true colour.

Lastly, we have the *piebald*, or black and white, or red and white. These have existed in all ages, are said even still to exist in a wild state on the confines of China—are depicted on the most ancient coins of that kingdom,—were cotemporary with the siege of Troy, being ridden by Turnus, king of the Retulians,—are still to be seen in a feral state in northern Italy, have appeared in America, at Patagonia, and as the paint horses of the North American Indian.

In observing the Sable Island horses for colour, I found the bays to be the most numerous, including the brown with them, and next the chestnuts. Of black there were few. Of greys, none. A peculiarly wild mare, seemed to be of a red roan, but I never got near enough to determine. There was one pure white young horse that must have been foaled white, from his age. Of piebald, they had so run into the colour that means had to be taken to lessen them, by destroying them, and by sending them off the island; and lastly, the bluish mouse colour, often with a black stripe along the back, seemed to be nearly as numerous as the chestnut. This last colour, uncommon among our artificial breeds, perhaps because of its soiled look and want of show, is very asinine in its colour, especially in the long winter livery, the inside of the ear being then fawn, and the list down the back very conspicuous. Many of the chestnuts seemed running into Isabella and light duns; but I saw none with black lines around the legs, and but few with the black list along the spine.

To sum up then what we read from this narrow page in natural history, opened to our view, and in which my sole assumption is their origin from two or three individuals, we find that, left to themselves, following the laws of natural selection, their descendants in one hundred and fifty years, have returned to the habits and manners of the tarpany, or only stock of wild horses now existing in the world. That, in regard to their form they differ in some respects from the tarpany, though agreeing with them in size, hairy head, and thick coat: but, although differing from these, they have wonderfully reproduced forms, of whose existence we only know from the sculptures of Nineveh and the friezes of the Parthenon, where we find the low stature contrasted by the tall rider, the abundant tail and mane either cropped or tied and plaited, to prevent its encumbering the rider, the hairy jowl and horizontal head, and the short and cock-thrappled neck, and in some figures the short croup and low tail. In the immense manes, one of which (I have the authority of the late Mr. EDW. WALLACE in asserting,) measured three yards; we find also their type in the feral breed of the Ukraine, a stuffed specimen of which breed, now at Dresden, measures the incredible length of 24 feet on its mane.

We find, too, in comparing them with the feral breeds of other lands, of hot sun, and rich bottoms on warm sandy plains, with the feral breeds of America, with the domesticated races of Asia and Africa—that in reproducing those forms, though left entirely to natural selection, they but obey a law general to all. The Mustang, the Shetland poney, the African barb, and the pure Arabian, all equally obey it still, as did the stud-mares of that great Assyrian, who came down upon Israel, “like the wolf on the fold,” thousands of years gone by.

We are forced to the inevitable conclusion, that had Childers, —who about the time these animals were placed upon their surf-fringed sand bank, was doing his mile a minute at Newmarket,—with his pure-blooded and fiery mates, been deported to this island, his descendants would have been a race of miserable ponies, instead of Herod and Eclipse, Harkaway, and Caractacus, with their thin necks and deer-like heads, high withers, noble standard borne tails and inimitable speed and staying.

As regards colour we find that the original stock carried with them the germ of all colours known from ages, not only the bays and browns which we consider the natural colours, but the more startling varieties of pure white, and piebald,—piebalds known from ages, on old China coin, upon the ancient Thracian hills, from whose back Attila ravished worlds, and the mark of whose foot, it was his boast, that neither nature nor man could efface. We find, too, the chestnuts prevailing with their extremities coloured like their bodies, their tails and manes growing ever lighter, and a tendency to a dark streak on the back and withers; lastly, the blue greys or mouse or tans, with the same dark streak. Here, too, there is nothing new; the ancient Assyrian dun, and the Phrygian cerulean breeds of the time of Homer, are all prototypes, though the latter is scarcely known among our domestic breeds.

Thus left to natural selection they have produced nothing new, but have reproduced old colours and forms. Content with noting facts we will leave it to others to speculate how far this reproduction of Isabella colour, the proper mule colour, points to some remote affinity with the Hippotigrine group; or the blue grey with its black stripe, so asinine in colour points to affinities with the wild ass, to

which fond fable has attributed this crucial mark, since he bore our Lord on his lowly back. But we may add that in his rat tail, thin mane and largely developed ear, the modern thorough bred also points to the same direction.

Again, it is curious to observe that the blue duns, and Isabella chestnuts, of Mexico, Tartary and Sable Island, are only the sub-colours of all horses; for in clipping horses of all colours, they are reduced—the bays, blacks and browns to the blue dun, whilst the chestnuts, except the very dark, become Isabella; even some white have become dark blue, or have a blue skin, the greys alone seeming unchanged. One may also speculate, if the black races, the first to die out, do not disappear insensibly into the blue tan: this colour being only kept up by grooming and condition, a few days of sun-tan turning the blackest, rusty.

Whether our domestic horse is descended from one original stock, or from several kindred species so nearly allied as to breed together, is a question towards solving which our few remarks, in so limited a period as 150 years, and so small a number as 400, may perhaps do a little; at all events the facts are worth preserving, and as such I have offered them to your attention.

ART. VIII. NOTES ON THE WEATHER AT HALIFAX, N. S., DURING 1863, WITH COMPARISONS OF THE TEMPERATURE OF THAT PLACE WITH SOME OTHER PARTS OF BRITISH NORTH AMERICA. BY COLONEL MYERS.

[*Read March 7, 1864.*]

MY knowledge of Meteorology is so slight, and not possessing the instruments employed in making the various delicate observations, which would have been required to enable me to treat the subject scientifically, the few remarks I have been prevailed upon to offer on this occasion, must necessarily be of the simplest character. They will consist for the most part of the results of a rough record of the weather, kept by me during the past year, and some comparisons of the temperature of this place with that of other parts of British North America.