

breed. Mr. Bates, in his admirable work on the Amazons, strongly insists on similar cases;<sup>12</sup> and he remarks, that the fact of thoroughly tamed native mammals and birds not breeding when kept by the Indians, cannot be wholly accounted for by their negligence or indifference, for the turkey is valued by them, and the fowl has been adopted by the remotest tribes. In almost every part of the world—for instance, in the interior of Africa, and in several of the Polynesian islands—the natives are extremely fond of taming the indigenous quadrupeds and birds; but they rarely or never succeed in getting them to breed.

The most notorious case of an animal not breeding in captivity is that of the elephant. Elephants are kept in large numbers in their native Indian home, live to old age, and are vigorous enough for the severest labour; yet, with one or two exceptions, they have never been known even to couple, though both males and females have their proper periodical seasons. If, however, we proceed a little eastward to Ava, we hear from Mr. Crawfurd<sup>13</sup> that their "breeding in the domestic state, or at least in the half-domestic state in which the female elephants are generally kept, is of every-day occurrence;" and Mr. Crawfurd informs me that he believes that the difference must be attributed solely to the females being allowed to roam the forests with some degree of freedom. The captive rhinoceros, on the other hand, seems from Bishop Heber's account<sup>14</sup> to breed in India far more readily than the elephant. Four wild species of the horse genus have bred in Europe, though here exposed to a great change in their natural habits of life; but the species have generally been crossed one with another. Most of the members of the pig family breed readily in our menageries: even the Red River hog (*Potamochoerus penicillatus*), from the sweltering plains of West Africa, has bred twice in the Zoological Gardens. Here also the Peccary (*Dicotyles torquatus*) has bred several times; but another species, the *D. labiatus*, though rendered so tame as to be half-domesticated, breeds so rarely in its native country of Paraguay, that according to Rengger<sup>15</sup> the fact requires confirmation. Mr. Bates remarks that the tapir, though often kept tame in Amazonia by the Indians, never breeds.

Ruminants generally breed quite freely in England, though brought from widely different climates, as may be seen in the Annual Reports of the Zoological Gardens, and in the Gleanings from Lord Derby's menagerie.

The Carnivora, with the exception of the Plantigrade division, generally breed (though with capricious exceptions) almost as freely as ruminants. Many species of Felidæ have bred in various menageries, although imported from various climates and closely confined. Mr. Bartlett, the present superintendent of the Zoological Gardens,<sup>16</sup> remarks that the lion appears to breed more frequently and to bring forth more young at a birth than any other species of the family. He adds that the tiger has rarely bred;

<sup>12</sup> 'The Naturalist on the Amazons,' 1863, vol. i. pp. 99, 193; vol. ii. p. 113.

<sup>13</sup> 'Embassy to the Court of Ava,' vol. i. p. 534.

<sup>14</sup> 'Journal,' vol. i. p. 213.

<sup>15</sup> 'Säugethiere,' s. 327.

<sup>16</sup> On the Breeding of the larger Felidæ, 'Proc. Zoolog. Soc.,' 1861, p. 140.