

The Kızılırmak Delta: The Natural Habitat of Anatolian Water Buffaloes (Anadolu Mandalarının Doğal Yaşam Alanı “Kızılırmak Deltası”)

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Dear Editor,

The Kızılırmak River, the longest river of Türkiye, rises in the skirts of Kızıladağ in Sivas and flows into the Black Sea from Cape Bafra in Samsun after gathering its water from little tributaries and streams from many cities it passes through. The Kızılırmak Delta is one of the most important wetlands in our country, created by the alluvial deposits carried by the Kızılırmak River. The delta comprises of lake, swamp, marsh and grass lands. Therefore, it also acts as a natural habitat for many living species and the Anatolian Water Buffaloes owned by the people living in this region.

The Anatolian Water Buffalo breeding is traditionally based on the releasing of them into the Delta between the months of April and November. During this period, the water buffaloes consume grasses consisting of gramineae, leguminosae and others at various stages of vegetation. They also graze aquatic and grass-like wetland plants near swamps and lakes to meet their nutritional requirements (Fig. 1). The feeding behaviors of water buffaloes are a bit different from those of cows. They can consume hard and even short plants easily (Fig. 2).

The majority of water buffaloes in the barns during winter season are not as lucky as when they are in the Delta, because they do not have the opportunities to consume grasses or fresh plants. They are generally fed by the owners with stalks and straws that are poor-quality feeds and these breeders have no concerns for supplying them with high-quality feed. Thus, the water buffaloes have the chance to improve their conditions through grazing in the Delta, when they leave their barns at the beginning of April, in a poor condition and with lower performance.

It is observed that the water buffaloes live in groups and have a semi-wild life style in the Delta. In fact, when you face up with a water buffalo in the Delta, it stops grazing, raises its head and focus on you until you walk away. You

can feel the traces, hardness and even the fright of a wild life in their looks and posture. As they perceive you as a stranger, mother buffaloes make distinctive sounds to gather their calves around them. This sound is like a bellow which is indescribable but you can only understand if you hear it. Probably, they have an intense maternal instinct that they not only gather their own calves but also call other calves around them and they relocate themselves between you and the calves.

The water buffaloes in the Delta, perhaps because of their thick skins and because they sweat less, spend the sunny hours of the day in wetlands, lakes, marshes and swamps. They spend their time in lakes and swamps for resting and getting cool. Covered in mud in marshes, you can observe that the water buffaloes are protected for a certain period of time, especially against flies and mosquitoes, after coming out of the marshes thanks to the mud's protective in nature. And when the day becomes cooler, they leave the wetlands and return to the green areas where they spend the night.

The mating behavior of water buffaloes generally occurs in the Delta. Therefore, some of the females, taken back by their owners from the Delta into the barns for winter season, are pregnant. Gestation is about 320 days. Thus, parturition takes place in places like small islets in the lakes, and the mother appears with her calf within several days after parturition.

The calves' suckling behaviours are also interesting. Calves prefer suckling by reaching the udders from between the back feet of their mothers. They wag their tails with the happiness of suckling (Fig. 3). When the mother is content in offering her milk, she also moves her tail but if she is anxious or reluctant, she can prevent the calf from suckling by movement, such as walking.

Despite the rich sources offered by the Kızılırmak Delta for the Anatolian Water Buffaloes, in the last three



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decades their numbers and productivity have decreased. As a result, a gradual reduction in the production of meat, milk, butter, yogurt and even the Turkish Delight with cream prepared in the district of Bafra using fresh water buffalo milk cream. Recently, financial incentives have been launched for water buffalo milk, meat and breeder (female) registered in the database to avoid this reduction and maintain the existence of these animals. However, in addition to these incentives and the projects created, some modern techniques need to be employed in order to raise the income of water buffalo breeders in this region. To do this, well-coordinated projects are created aiming the increase in the amounts of animal products obtained from water buffaloes by feeding them with higher quality feed during the winter season in the barns, in addition to releasing into the Delta. It should also be considered that the breeders' resources, processing and marketing of these products should be improved to ameliorate Anatolian Water Buffaloes breeding.



Fig 1. Anatolian Water Buffalo in wetlands of the Kızılırmak Delta
Şekil 1. Kızılırmak Deltası sulak alanlarındaki Anadolu Mandası



Fig 2. Consumption of grass by Anatolian Water Buffaloes in the Kızılırmak Delta

Şekil 2. Kızılırmak Deltası'nda Anadolu Mandaları'nın yeşil bitkileri tüketmesi



Fig 3. Calf suckling from mother

Şekil 3. Malağın annesinden süt emmesi