

Livestock at Marala Head

Zahid Bhatti

Center for Bioresource Research (CBR), Islamabad, Pakistan

Fakhra Nazir

Capital University of Science and Technology, Islamabad, Pakistan, fakhra.979.nazir@gmail.com

Jibran Haider

Forest and wildlife Department, Gilgit-Baltistan, Pakistan

Follow this and additional works at: <https://corescholar.libraries.wright.edu/jbm>



Part of the [Biodiversity Commons](#), [Other Ecology and Evolutionary Biology Commons](#), and the [Zoology Commons](#)

Recommended Citation

Bhatti, Z., Nazir, F., & Haider, J. (2019). Livestock at Marala Head, *Journal of Bioresource Management*, 6 (2).

DOI: <https://doi.org/10.35691/JBM.9102.0105>

ISSN: 2309-3854 online

(Received: Dec 28, 2019; Accepted: Dec 29, 2019; Published: Apr 10, 2019)

This Article is brought to you for free and open access by CORE Scholar. It has been accepted for inclusion in *Journal of Bioresource Management* by an authorized editor of CORE Scholar. For more information, please contact library-corescholar@wright.edu.

Livestock at Marala Head

© Copyrights of all the papers published in Journal of Bioresource Management are with its publisher, Center for Bioresource Research (CBR) Islamabad, Pakistan. This permits anyone to copy, redistribute, remix, transmit and adapt the work for non-commercial purposes provided the original work and source is appropriately cited. Journal of Bioresource Management does not grant you any other rights in relation to this website or the material on this website. In other words, all other rights are reserved. For the avoidance of doubt, you must not adapt, edit, change, transform, publish, republish, distribute, redistribute, broadcast, rebroadcast or show or play in public this website or the material on this website (in any form or media) without appropriately and conspicuously citing the original work and source or Journal of Bioresource Management's prior written permission.

LIVESTOCK AT MARALA HEAD

ZAHID BHATTI¹, FAKHRA NAZIR² AND JIBRAN HAIDER³

¹Center for Bioresource Research (CBR), Islamabad, Pakistan

²Capital University of Science and Technology, Islamabad, Pakistan

³Forest and Wildlife Department, Gilgit-Baltistan, Pakistan

*Corresponding author: fakhra.979.nazir@gmail.com

ABSTRACT

Pakistan possesses the most varied and widely distributed network of wetlands. The study area spanned across Kikar post to head Marala at river Jammu Tawi from Kalyal to head Marala at river Chenab and from Rangpur Kuri to head Marala at river Manawar Tawi. Total count of the livestock (resting grazing) population was taken during each calendar month of the year, i.e., from October, 2000 to September 2001. The results of the survey confirmed the presence of 6 common species of livestock i.e. sheep, goat, buffaloes, cows, donkeys and horses in the study area in different sizes of populations.

Keywords: Cows, horses, donkeys, livestock, wetland

INTRODUCTION

Wetlands are young and dynamic compared with other major natural forms of landscape. Many are physically unstable, changing in a season or even in a single storm. They change with a change in vegetation. They also provide agricultural resources and support rural communities for fishery. Harvest of game from wetland areas, supplement income in rural areas and provide seasonal employment. Wetlands are also of recreational value, e.g., bird watching, swimming, fishing, sailing, canoeing, or simply to walk beside and admire their beauty.

Pakistan possesses the most varied and widely distributed network of wetlands, including water reservoir storages (Chashma Barrage, Taunsa Barrage, Mangle Dam, Turbela Reservoir), heads (Head Islam, Head Sulemanki, Head Sidhnai, Head Marala, Head Qadirabad, Head Khanki, etc.), brackish lakes, (Namal, Khabeki, Jhalar, Kalar Kahar), small dams (Kandar, Tanda, Warsak etc.) freshwater to slightly brackish (Patisar Lake in Lal Soharna National Park),

freshwater marshes, (Beroon Kirthar Canal, Kund Lake) (Scott, 1989).

Altaf et al. (2014) conducted a study in Head Marala forest and found multiple varieties of weeds and reeds. The availability of freshwater and grazing material, make this area an ideal location for breeding livestock. The grazing population of livestock near wetlands can be both beneficial and detrimental to its niche. Many studies cite the presence of livestock as detrimental to water birds such as water fowls (Bassette, 1980; Bennett, 1937).

This study was conducted to investigate the species richness of livestock present near Marala wetlands. This study may be used as a baseline for further research on other factors and species existing in this wetland area.

MATERIALS AND METHODS

The study area spanned across Kikar post to head Marala at river Jammu Tawi from Kalyal to head Marala at river Chenab and from Rangpur Kuri to head Marala at river Manawar Tawi. Total count of the

livestock (resting grazing) population was taken during each calendar month of the year, i.e., from October, 2000 to September 2001.

RESULTS

Table 1. Number of Livestock observed at river Jammu Tawi

Common Name	Months											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Sheep	40	53	33	37	55	70	85	100	97	63	57	35
Goat	80	83	40	60	70	75	60	45	77	87	85	75
Cow	95	97	100	80	63	75	50	90	93	67	85	65
Buffaloes	87	77	104	97	77	92	85	95	100	93	87	67
Donkey	7	11	9	7	12	15	6	9	7	10	11	13
Horses	5	3	7	6	4	3	2	5	3	7	6	9
Total	314	324	293	287	281	330	288	345	377	327	331	264

Table 2. Number of livestock observed at river Chenab

Common Name	Months											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Sheep	85	97	83	75	70	73	87	150	170	110	99	93
Goat	55	40	35	45	47	30	35	33	40	55	47	33
Cow	83	87	77	95	93	63	70	80	87	93	73	80
Buffaloes	100	93	140	77	93	95	88	97	87	95	77	92
Donkey	10	15	13	12	12	14	9	7	13	8	10	9
Horses	5	11	13	8	6	11	13	12	9	7	8	10
Total	338	343	361	312	321	286	302	379	406	368	314	317

Table 3. Number of livestock observed at river Manawar Tawi

Common Name	Months											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Sheep	15	20	23	31	37	25	45	33	37	41	25	33
Goat	17	27	18	21	31	25	43	37	27	29	31	41
Cow	70	65	61	75	66	70	73	80	60	62	55	63
Buffaloes	80	95	93	77	83	85	75	73	60	77	87	63
Donkey	5	9	13	11	10	11	9	23	17	15	21	13
Horses	7	5	11	13	9	8	7	13	5	7	10	11
Total	194	221	219	228	236	224	252	259	206	234	229	224

DISCUSSION

The data on the census of the livestock population present in the Bajwat area i.e., River Jammu Tawi (Table 1), River Chenab (Table 2) and River Manawar Tawi (Table 3) suggested that 6 common species of livestock i.e. sheep, goat, buffaloes, cows, donkeys and horses were present in the area in different sizes of populations. The census result showed that different number of the heads of the livestock were present in different parts of the year in the areas around River Jammu Tawi (250-350), River Chenab (300-400) and River Manawar Tawi (200-250). Specifically, high numbers of livestock were observed during monsoon period. Overall, the least population numbers recorded were of horses and the highest of buffaloes.

It was noted that the livestock was a constant cause of disturbance to the birds who avoided their presence. The animals were mostly not accompanied by their herders. There were indications of presence of a high grazing pressure on the pastures and

the grazing pressure was beyond the carrying capacity of the range lands. Evans and Blake (1955) reported that overgrazing small wetlands created unsuitable habitat for brood in South Dakota. Logan (1975) reported that decrease in invertebrate animals is caused by overgrazing of wetlands when livestock are present in large numbers to destroy aquatic vegetation.

Overgrazing may cause a decrease in primary productivity (Reimold et al., 1975) and increase in water turbidity (Logan, 1975) and areas devoid of vegetation (Bassette, 1980). Lane (1983) stated that during the integration of livestock and fish system, the animal droppings are used to fertilize the fish pond or lakes to increase their natural productivity which is used by the fish as their food and fish in turn is eaten by water birds, while the fish pond silt is used to supplement in organic fertilizers for agricultural crops.

CONCLUSION

The results of the survey confirmed the presence of 6 common species of livestock i.e. sheep, goat, buffaloes, cows, donkeys and horses in the study area in different sizes of populations. The census result showed that different number of the heads of the livestock were present in different parts of the year in the areas around River Jammu Tawi (250-350), River Chenab (300-400) and River Manawar Tawi (200-250). Specifically, high numbers of livestock were observed during monsoon period. Overall, the least population numbers recorded were of horses and the highest of buffaloes.

REFERENCES

- Bassett PA (1980). Some effects of grazing on vegetation dynamics in the Camergue, France. *Vegetation*, 43:173-184.
- Beadle LC (1932). Scientific results of the Cambridge expedition of the East African Lakes. *J Limn Soc. (Zool.)*, 38:157-200.
- Bennett LJ (1937). Grazing in relation to the nesting of the blue winged teal. *Trans N Am Wildl Conf Z*, 2: 393-397.
- Chughtai TZ (1979). Limnological studies of Rohi Nallah (Lahore). M.Sc. thesis, Deptt. Zool. Govt. College, Lahore.
- Courcells R, Bedard J (1978). Habitat selection by dabbling ducks in the Baie Noire Marsh, Southwestern Quebec. *Can J Zool.*, 57: 2230-2238.
- Cowardin LM, Carter V, Golct FC, La Roe ET (1979). Classification of wetlands and deepwater habitats of the United States. Biol. Services Program, Fish Wildl Serv. USA. Dept. Interior, Washington D.C., PP.
- Evans CD, Blake KE (1956). Duck production studies on the prairie potholes of South Dakota. *US Fish Wildl Serv Spec Sce Rep– Wildl.*, 32: 59.
- Kantrud HA (1986). Effect of vegetation manipulation on breeding waterfowl in prairie wetlands. A literature review. *U.S. Fish Wild. Serv.:* 1-15.
- Lane JAK, Munro DR (1983). 1982 review of rainfall and wetlands, In the Southwest of western Australia. Deptt. Fish Wildl., Western Australian. Rep. 58, Perth.
- Logan TH (1975). Characteristics of small impoundments in Western Oklahoma, their value as waterfowl habitat and potential for management. M.S. thesis, Oklahoma State Univ., Stillwater. 77 pp.
- Reimold RJ, Linthurst RA, Wold PL (1975). Effects of grazing on a salt marsh. *Biol Conserv.*, 8: 105-125.
- Scott DA (1989). *A Directory of Asian Wetlands*. UK: IUCN, Gland, Switzerland and Cambridge, UK.