

Part 1.

1. An introduction to sheep, its importance in human history, its taxonomic classification and diversity
2. Bighorn sheep
3. Thinhorn sheep
4. Snow sheep
5. Argali
6. Urial
7. Asian mouflon
8. European mouflon
9. Domestic sheep

Part 2.

10. Adapted behaviors of genus *Ovis* to various conditions
11. Reproductive behaviors during the reproductive season
12. Genes and behavioral traits
13. New methods and technologies to record sheep behaviors

Part 3.

14. Genetic markers and platforms in genetics studies of sheep
15. Functional genes and genetic mechanisms underlying phenotypic variations in wild sheep
16. Functional genes for meat production and growth traits
17. Functional genes for milk production
18. Functional genes for wool traits and coat colors
19. Functional genes for reproductive traits
20. Functional genes for tail-type traits
21. Functional genes related to appendages (i.e., horns, teats, ears)
22. Functional genes for stress and disease resistance

Part 4.

23. Sheep domestication and major post-domestication breeding
24. Post-domestication expansions and haplotypes
25. Archaeological evidence and historical records for sheep remains and ancient DNA
26. Evidence from Neolithic archaeological sites during past millennia and post-domestication migrations
27. Interspecies mating and genetic introgressions among the species