#### **Abstract**

Babesiosis disease caused by different species of Babesia's protozoa infects Vertebrate hosts including wild and domestic animals and humans. Babesia is one of the most important Blood Protozoan Parasites that is transmitted by hard ticks in tropical and subtropical regions. Babesia Motasi and Babisia Ovis known as Pathogenic and common species in Iranian sheeps and goats and sometimes mixed infection of both has been reported in a host. In Iran, annually, Babesia causes heavy losses in sheeps in hot seasons of the year, especially late spring. Since on the one hand, breeding sheep and goats is one of the main sources of income in villagers and tribes in Sistan and Baluchestan province and on the other hand Babesia can cause disease with death and finally resulted in economical losses to this group of society and, ultimately, to the livestock industry of the country, this research has been done. The aim of the study was both Molecular identification of babesia species and detection of carriers in the sheep and goat population of this province so as to apply control programs and Prevention of Babesiosis disease. To do this, Blood samples from sheep and Goat in the cities of Zahedan, Mirjaveh, Khash, Saravan and Iranshahr together with the ticks of the animal body surface obtained and examined. From a total of 100 collected blood samples using PCR assay, were found 2cases (2 percent) positive for Babesia SPP and 34 cases (34 percent) positive for Theileria SPP. Also one positive case were showed mixed infection with Theileria SPP. by Semi nested PCR only Babesia Ovis was detected and Using valid diagnostic keys Under the sterio microscope ticks of Hyalomma asiaticum asiaticum, Hyalomma anatolicum anatolicum.Rhipicephalusturanicus an Rhipicephalus sanguineus were determined as probable carriers of Babesia.



# University of Zabol Graduate School Faculty of Veterinary Department of Pathobiology

# The Thesis Submitted for the Degree of Master of art (In the field of Veterinary Parasitology)

#### Title:

Study of sheep and goat infection to *Babesia* SPP in sistan and bluchestan province by molecular assay and detection vector ticks of disease.

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