

# PERSONALITY ASSESSMENT AND EFFECT OF VISITORS ON A GROUP OF LIONS (*PANTHERA LEO*) HOSTED IN CAPTIVITY

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In the last 10 years researches have been focused on the impact of personality on welfare, health and management of zoo animals. The present study, as part of a wider research in European Zoos, had the purpose to identify the personality of three female and one male lions housed at Parco Natura Viva - Garda Zoological Park. Moreover, since researches have reported significant effects of visitor presence on zoo animals, in particular primates and felids, the effects of visitors on the behaviour of these animals was also evaluated. The study was made of two different periods, one in the presence and one in the absence of visitors. Data on individual and social behaviours were collected using focal animal sampling method. The enclosure was ideally divided in different zones. During each observational session, the zone in which the animal was, the position of body, the proximity to conspecifics were also collected. The time budget, the association index and the sociogram were then calculated. Besides, a survey (modified from Chadwick, 2014) was proposed to the two keepers of the lions. The questionnaires listed 31 traits rated on a scale from 1 (trait was never exhibited) to 12 (trait was always exhibited) by the keepers for each lion. Personality profiles were defined for each individual through the questionnaires correlated with behavioural data. Statistical analysis within subjects underlined a significant difference in the following traits: curious, friendly to conspecifics, playful, solitary. In addition, the ANOVA (F-test) assessed a significant difference between the two periods of observation (with and without visitors) for the curious, eccentric, playful and vocal traits. The results showed that the different personality between animals seems not be related to age, gender or rearing history. Studies about animal personality are useful to guarantee a good care and the management of each individuals.