

# BearWell and CatWell: species-specific welfare assessment protocols for brown bears (*Ursus arctos*), lions (*Panthera leo*) and tigers (*Panthera tigris*) in sanctuaries.

Elena Stagni<sup>1\*</sup>, Sara Sequeira<sup>1\*</sup>, Marlene K. Kirchner<sup>1</sup>, Xavier Manteca<sup>2</sup>, Marta Brscic<sup>3</sup>, Irene Redtenbacher<sup>1</sup>, Sabine Hartmann<sup>1</sup>

\*equal contribution

<sup>1</sup> FOUR PAWS International, Vienna, Austria

<sup>2</sup> Department of Animal and Food Science, Autonomous University of Barcelona, Spain

<sup>3</sup> Department of Animal Medicine Production and Health (MAPS), University of Padova, Legnaro (PD), Italy

## INTRODUCTION

Animal keeping facilities are ethically compelled to ensure the welfare of the animals under their care. Scientifically validated protocols should be used to assess the welfare of these animals in a sound and reliable way. Welfare assessment protocols for wild animals have already been developed for some species<sup>1-4</sup>, but none yet for brown bears, lions and tigers under human care. The BearWell (BW) and CatWell (CW) protocols aim to fill this gap by using valid, reliable and feasible animal-based measures to assess the welfare of these animals housed in sanctuaries. These protocols are meant to be routinely applied by trained staff.

## MATERIALS AND METHODS

- » Literature Review
- » Analyses of existing data<sup>5</sup>
- » Internal Expertise

### Selection of ABMs

#### Ex novo development of ABMs

- » Qualitative Behavioural Assessment (🐻<sup>6+</sup>🐆)
- » Visual Body Condition Score (🐻)
- » Quantitative Behavioural Monitoring (🐻+🐆)
- » Health measures (🐻+🐆), incl. Locomotion Score

#### Adaptation of existing ABMs

- » Body Condition Score (🐆)
- » Faecal Scale (🐻<sup>7+</sup>🐆)

### Valid, reliable and feasible species-specific ABMs

### Integration of ABMs in BW and CW protocols

### Prototype BW and CW protocols

Protocols tested for reliability and feasibility in the field, with most experienced staff and gold standard assessor

### Final BW and CW protocols

### Implementation of protocols in FOUR PAWS sanctuaries

### Individual-based management improvements



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## CONCLUSION

The BearWell and CatWell protocols will enable a standardised and reliable data collection, allowing the monitoring of the welfare of more than 80 brown bears, and over 80 lions and 20 tigers housed in FOUR PAWS sanctuaries. Individual and general management and husbandry will be adjusted based on the outcome of the assessments aiming to improve to the best achievable level the quality of life of the animals. The protocols could also be implemented outside FOUR PAWS sanctuaries in facilities housing these species to monitor and consequently to improve their welfare.



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