









# Is there hope beyond fear? Effects of social rehabilitation on unsocialized stray dogs

By Miriam Casaca | mirca489@student.liu.se Supervisors: Per Jensen, Anna Olsson, Ana Catarina Vieira de Castro

**<u>Aim</u>**: To determine if, with the implementation of rehabilitation and training protocols, unsocialized stray dogs can develop the skills needed to successfully interact with humans

## **Background**

Depending on their origin, whether abandoned by their owners or born in the streets, stray dogs have different levels of fear/tolerance towards humans. Previous studies suggest that, with training, some stray dogs can adapt to a human home environment despite an initial state of shyness and fear. However, to date, no one assessed whether the same rehabilitation is possible with highly unsocialized stray dogs.

#### Strays: Oscar & Jack



#### ★ x18 ➡ 3 Groups ▲ n=6 (★ x3 ★ x3) **Socialized Shelter Dogs** Sociability Test (ST) & Leash Test (LT): Control Group 1 (C1) **Overall Control** - Familiar Person: the person who performed the training Control Group 2 (C2) - Unfamiliar Person: one of the study's Social Rehabilitation supervisors & Leash Training Stray Group (S) Protocols 🔶 ST X3 Time Points - ST1 | ST2 | ST3 **Unsocialized Stray Dogs** Score(min-max): 0-26 LT X2 Time Points – LT1 | LT2 Based on systematic desensitization, counterconditioning Score(min-max): 0-6 and positive reinforcement of desired behaviours

# **Results**

### **Sociability with Humans :**

#### Intergroup Comparisons:

• C1 and C2 showed higher sociability scores than S for ST1, ST2 and ST3, for both the familiar and unfamiliar

#### **Behaviour on Leash:**

#### Intergroup Comparisons:

• C1 and C2 showed higher leash behaviour scores than S for LT1 and LT2, for both the familiar and unfamiliar

#### **Body Posture during Social Rehabilitation and Leash Training:**

- Fearful: decreased from T1 to T20-T40
- Neutral: increased from T1 to T20-T40
- Friendly/relaxed: increased from T1 to T40

### **Animals & Methods**

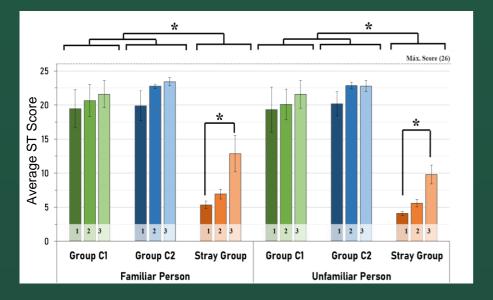
person.

#### Intragroup Comparisons:

· S showed an increase in the sociability score from ST1 to ST3, for both the familiar and unfamiliar person.

#### Familiar Person vs Unfamiliar Person:

• No significant differences were found for neither time point nor group.



Average sociability score at time points 1 (ST1), 2 (ST2) and 3 (ST3). Results are presented for C1, C2 and S, for the familiar and unfamiliar person. \*p < 0.05; Vertical bars show the SEM.

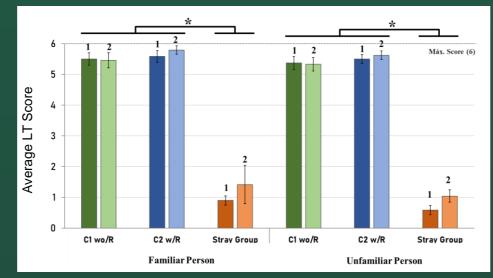
person.

#### Intragroup Comparisons :

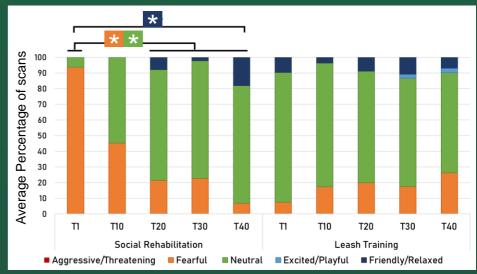
• No significance differences were found between LT1 and LT2 for C1, C2 and S, for neither the familiar nor the unfamiliar person.

#### Familiar Person vs Unfamiliar Person:

• No significant differences were found for neither time point nor group.



Average leash behaviour score at time points 1 (LT1) and 2 (LT2). Results are presented for C1, C2 and S, for the familiar and unfamiliar person. \*p < 0.05; Vertical bars show the SEM.



Average percentage of scans in the different body postures during the daily 10 minutes of training. Results are depicted for both protocols (social rehabilitation – left; leash training – right) for training days 1 (T1), 10(T10), 20(T20), 30(T30) and 40(T40). \**p* < 0.05;



**Before** 

After

- Training improved stray dogs' sociability, but not behaviour on leash
- Stray dogs' body posture evolved across training from fearful to a more neutral stance.

**Conclusions** 

The present study suggests that, at least for some unsocialized stray dogs, sociability towards humans can be improved with training!

