



**LIFE** Population level management and  
**DINALP** conservation of brown bears in northern  
**BEAR** Dinaric Mountains and the Alps



# **PROPER USE AND OPERATION OF THE BEAR-PROOF GARBAGE CANS AND COMPOST BINS IN THE MUNICIPALITIES OF RIBNICA AND SODRAŽICA – TECHNICAL REPORT**

***Action C.1: Conflict mitigation in the hot-spot areas – organic waste***

**August, 2018**

  
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## 1. Introduction

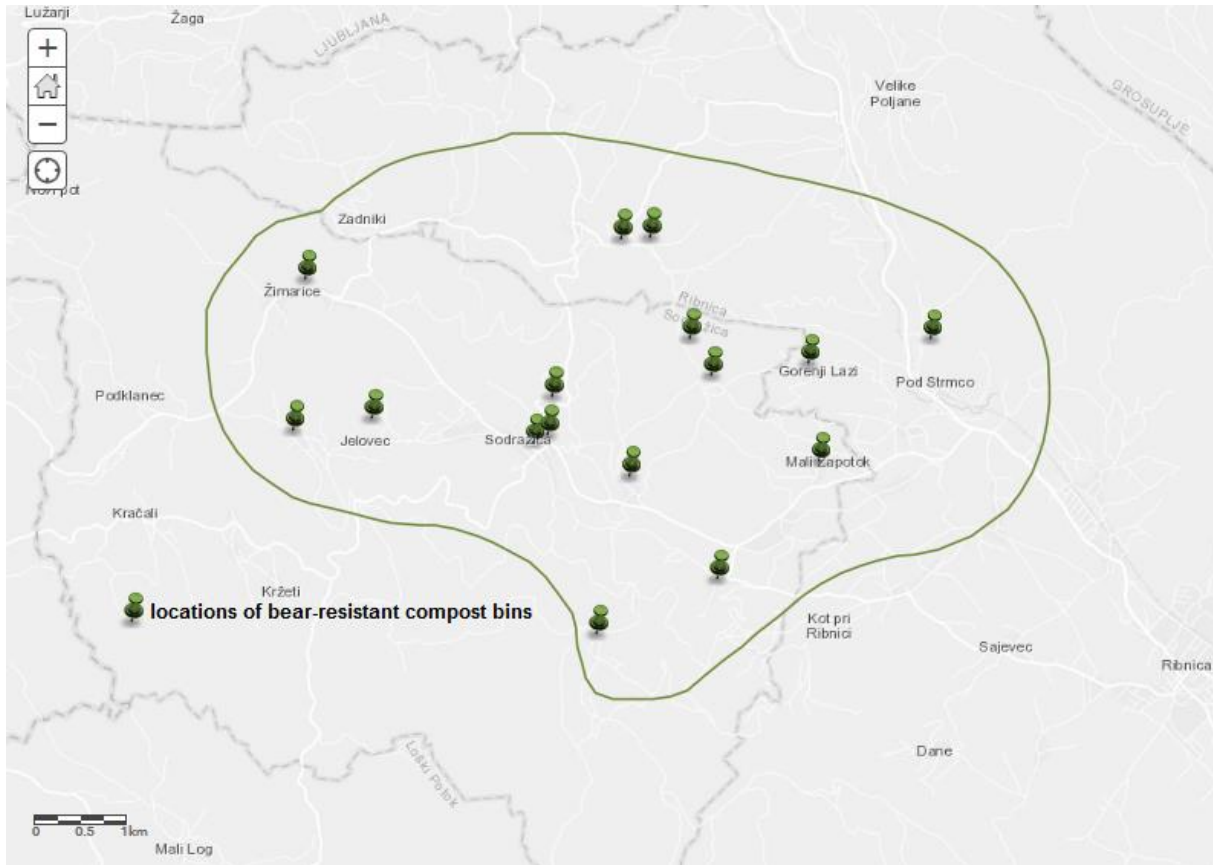
The location of implemented measure, eastern part of the municipality of Sodražica and northwestern part of the municipality of Ribnica, lies in the central area of human-bear conflicts (see map 1). Because in both municipalities the waste collection and removal is organized individually, there is no problem with the waste. People usually put their herbage cans in front of the houses in the morning before the waste removal, therefore the waste is exposed only for short time. This is the reason, why the bears do not cause problems with waste. In contrast to the waste, bear often cause problems and access compost contents. According to the long tradition, in this area, every household had open and unprotected compost bin before implementation of the measure started.



**Map 1:** Location of the municipalities of Sodražica (in green) and Ribnica (in blue) in Slovenia.

## 2. Description of implemented measures on the »hot-spot«

In this “hot-spot” only compost bins were distributed among twenty-six recipients. The prevention measure was implemented in several settlements Hojče, Žlebič, Gorenji Lazi, Graben, Preska, Sinovica, Zamostec, Zapotok, Lipovšica, Sodražica, Jelovec, and Žimarice (see map 2). They were distributed to the locals with the most numerous conflict situations with bears, and are located on the most exposed areas with the most frequent bear visits.



**Map 2:** Locations of the bear-proof compost bins in both municipalities.

### 3. State of implemented measures on different locations

#### 3.1 Bear-proof compost bins

Generally, the recipients are very satisfied with the implemented measure, even if in this “hot-spot” the willingness to cooperate and attitudes toward bears are usually the most negative. Even if they act very passively at the beginning of the conversations, after the implemented measure, the recipients showed to be very proactive, mainly because of our well-established collaboration. During the control visits, we find that the compost bins are generally in a very good condition, even if weather conditions are very harsh in this area.





Figures 1-4: Good condition and operation of the compost bins on the location.

We only noticed some smaller irregularities:

- a) **technical irregularities:** in some cases, when not maintained consistently, the cover lid become slightly rusted during the winter-time.
- b) **inconsistent use:** in one case, the compost bin was not anchored correctly.

Cover lid usually do not rust if the user consistently takes care of the compost bins and coat lids with the rust-protective agents. In only few occasions, where the problem occurred, it was immediately solved by the owners. Since the problem turned own to be exclusive, it does not need any special interventions. In order to avoid inconsistent maintenance of the compost bin in the future, we informed all of the recipients additionally during our visits. Since then, the irregularity does not occur. During our first visit in the autumn 2017, we noticed that one of the recipients did not anchored his compost bin correctly. We stressed out the fact that the bear could access the contents if it turns the compost bin around and if is rewarded with food, will come back constantly. Immediately after the conversation, the recipient anchored the compost bin correctly and therefore ensure its “bear-proofness”.

Two of the compost bin recipients told us that in one occasion the bear and in other the sow with the cubs visited the compost bins. After they could not access its contents, and they were not rewarded with food, they did not return. This are two more examples which show that the implemented measure is working properly and serve its purpose very well.

**Example of a good practice:** one of the compost bin recipients is an innovator. He renovated his compost bin and make the usage even easier. He added the extra spin (figure 6) to the cover, to be opened automatically. He also rearranged the lid horizontal position, and install it with decrease inwards. In this way, the water does not stay in the lid surrounding and cause rust. Also the rods between the first and the second lath. They work as a riddle (figure 7), and make the compost removal much easier. The innovative approached will be presented to the manufacturer of the compost bins.



**Figure 6:** An extra spin added in addition to help open the cover automatically.



**Figure 7:** Inserted rods, which serve as a riddle.

#### **4. Overall measures condition and implications for further usage**

##### **4.1 Bear-proof compost bins**

Since there is in general no major problem noticed, we can conclude, that the bear-proof compost bins have been serving their purpose very well. Since we did not find any major irregularities in compost bins' use, it can be assumed that our individual consultations with the users have been very successful. For the purpose of informing the locals about the importance of the correct and consistent use of the compost bin and promoting the examples of good practices and therefore also raising awareness among local people, we will also organize a lecture/workshop on this subject.