## 2.3. In situ Management of orphaned lynx

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When apparently orphaned juvenile lynx are found, there is usually the need for some management intervention. Borel et al. (2022) created two decision trees to facilitate the management of young lynx found alone, and therefore potentially orphaned. A first decision tree (Fig. 2.3.1) aims to help choose the best possible management according to the situation. Possible management interventions are 1) immediate euthanasia or culling: if the animal is in very poor health and no therapy is feasible; 2) rehabilitation: if recovery of the animal is possible, a suitable wildlife care center is available and especially if the release of the orphan back into the population of origin or elsewhere is of conservation importance; 3) feeding in the wild: if the animal is in good apparent health, more than 5 months old (from October) and the local situation allows for this management measure (e.g., no presence of large scavengers like bears); and 4) Integration into the EAZA captive breeding program (EEP): if the animal is of special genetic value for the ex situ population and no other option is feasible.

The conservation value of the young lynx from a population perspective as well as the need for animals in ongoing translocation projects are important factors to be taken into account in order to prioritize the allocation of the available places in wildlife care centers (see Appendix *VII Orphans checklist*). For translocation programs, for example, young lynx from populations that are genetically and demographically suitable to serve as source populations for translocations would have priority over lynx from unsuitable populations. When orphaned lynx are released back into the population of origin, their conservation value from a population perspective should also be considered (see protocol *3.4 Rewilding of orphans and zoo born lynx*). Spending resources to rehabilitate and release orphaned lynx back into small or declining populations or into regions of high importance for connectivity can contribute to the achievement of conservation goals (Molinari-Jobin et al., in prep.). However, spending resources on lynx orphans from high-density populations, where such a management measure may be questioned by local communities, might even prove detrimental for the local acceptance of the species. In this case, feeding in the wild (see below) or immediate euthanasia may be more suitable (depending on local conditions and national legislation), if the young lynx cannot be used for translocation programs. Under certain conditions, some orphaned lynx that cannot be released back into the wild could also be integrated into EEP. For this decision, national legislation, the animal's genetic value for the ex situ population, its health status, age, and behaviour (e.g., whether the individual seems able to adapt to a life in captivity) have to be assessed on a case-by-case basis.

When the young lynx seems to be in good health, a second decision tree (Borel et al. 2022; Fig. 2.3.2) helps to define whether it is indeed an orphaned lynx having lost its mother, and not a young lynx temporarily separated from her. First, the age of the animal must be estimated (according to the month of the year). Non-mobile young (less than 8 weeks old) should be moved to a safe place and observed from a distance using a camera trap. Very young cubs are sensitive to hypothermia and should not be exposed to precipitation or cold temperatures. If the mother does not return within a few hours and no natural shelter is available, consider offering a box with straw. If the mother does not reappear after 8 hours, (during a period including hours of dusk or dawn) the young is considered orphaned.

When a young mobile lynx (more than 8 weeks old) is found near a village or a dwelling, it is directly considered orphaned. If, on the contrary, it is found in the wild, a possible prey must be searched, ideally with the help of a dog. If necessary, a new prey must be deposited. In both cases, a camera trap must be set up and a remote monitoring must be done for a maximum of 48 hours (Fig. 2.3.2).

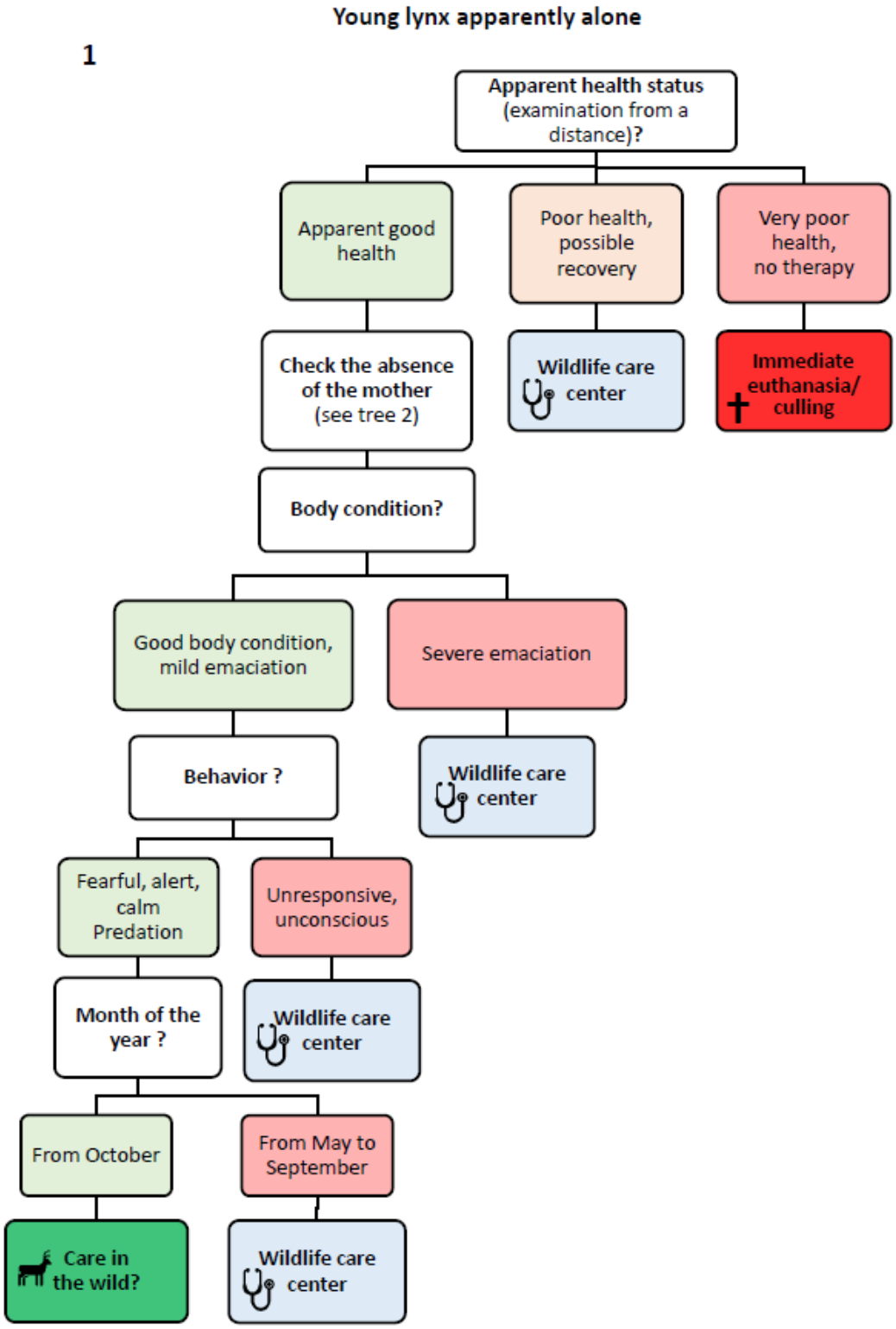


**Fig. 2.3.1:** Decision tree for management of potentially orphaned young lynx.

## 2 Verification of the absence of the mother

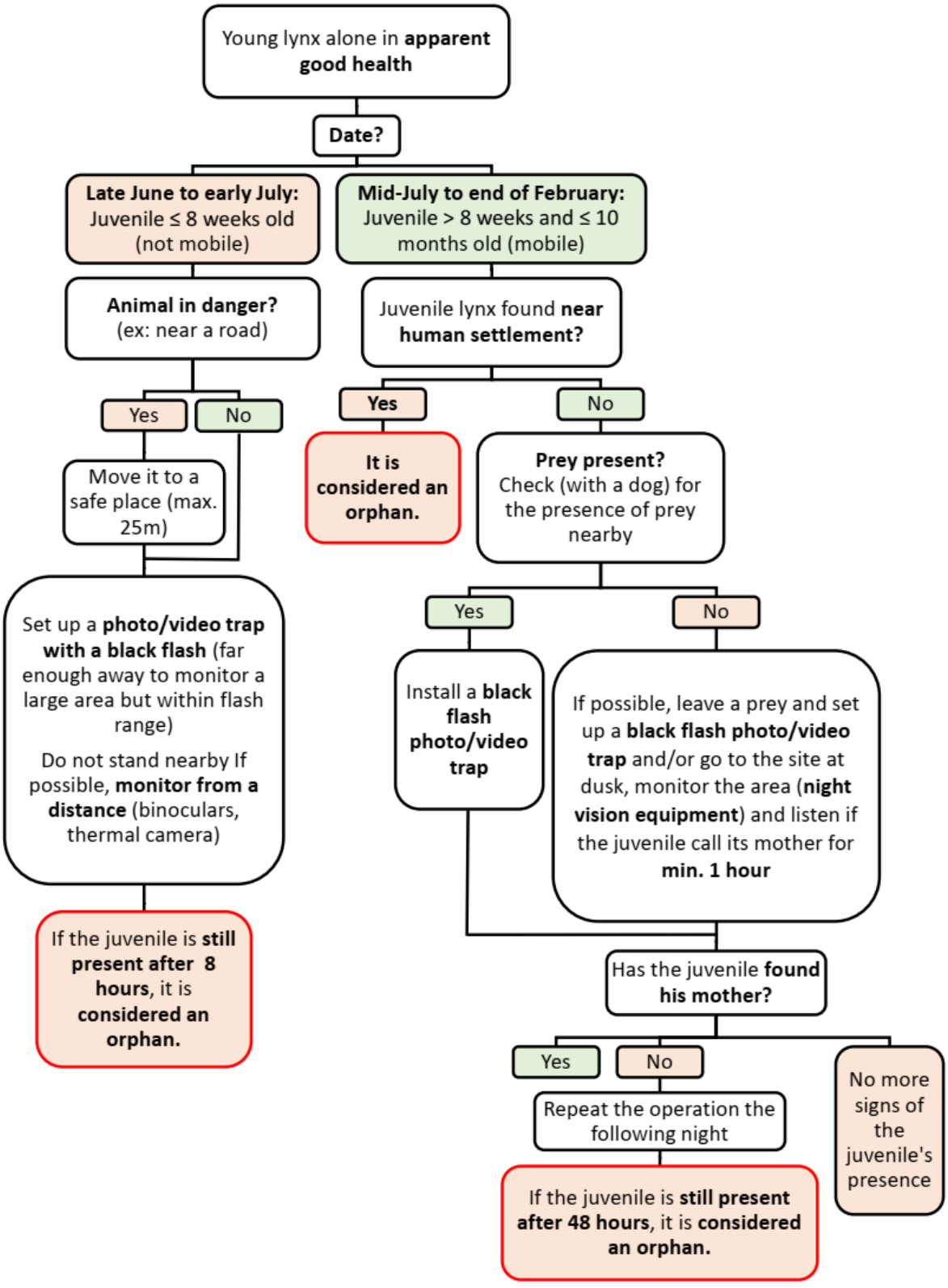


**Fig. 2.3.2.** Decision tree for the verification of the absence of the mother.

Feeding of lynx orphans in the wild is still a little used practice, documented for the first time in the Bavarian Forest National Park in Germany in 2018/2019 with a pair of siblings (Premier et al. 2021). In Switzerland, nine game wardens from six cantons reported having tried this method but survival to independence could not be evaluated for most of the documented cases (Borel et al. 2022). If other options are not available or not desired, this measure can nonetheless present an alternative and rather low-cost solution under certain conditions (no large scavengers), especially in cases where young lynx have almost reached the age of independence. Based on the experiences of Swiss game wardens, recommendations for feeding in the wild have been made by Borel et al. (2022) and have been modified for the following recommendations: The feeding site should be away from houses and villages, busy roads and domestic animals, and should be located under good vegetation cover so that the lynx can hide and to reduce the risk of scavenging birds eating the food left for the lynx. It is recommended to use the lynx' natural prey, such as apparently healthy roe deer or chamois. Depending on the situation, provide new carcasses at least once a week. However, offering food in small amounts reduces the likelihood that scavengers will benefit from it. If the orphaned lynx is not in a suitable location, the lynx can perhaps be displaced in different ways: Either by capturing it with a box trap, moving and releasing it at a better location nearby or by gradually moving the carcass about 150 m each day towards the selected location. This can only be done, however, if the target area is within 500 m of the location where the juvenile was found.

Feeding continues until the natural dispersal of the lynx in the wild (March-April), or until the lynx no longer comes to the feeding site. If it is undesirable that scavengers benefit from the food offered to the young lynx, feeding must be stopped upon their detection at the feeding station. Other options must then be considered to ensure the survival of the young lynx (capture and transport to a wildlife station, etc.).

**References:**

Borel S., Zimmermann F., Vogt K., Stauffer C., Molinari-Jobin A. & Ryser-Degiorgis M.-P. 2022. Management of orphan lynx - mandate of the canton of Vaud 2021-2022.

Premier J., Gahbauer M., Leibl F. & Heurich M. 2021 In situ feeding as a new management tool to conserve orphaned Eurasian lynx (*Lynx lynx*). Ecology & Evolution 11, 2963-2973

Molinari-Jobin A., et al., in preparation. Rehabilitation and release of orphaned Eurasian lynx (Lynx lynx) in Europe: implications for management and conservation.