



## **Ecological Position Paper of the European Hang Gliding and Paragliding Union (EHPU)**

**No other kind of air sport gives the participant a more bird-like feeling and a greater experience of the natural world than hang gliding and paragliding. Like birds, the pilots use the power of the sun and the wind to engage in free flight.**

**Participation in these activities is based on cooperation instead of confrontation. Scientific studies in this area may form the basis of solutions of conflicts with nature. Conservation and voluntary agreements on flying sites are preferred to legal solutions or Regulation.**



Paraglider and eagle in a thermal. (pic: Peter Wild)

### **Main Principles of the EHPU**

- **Paragliding and hang gliding are outdoor sports which generate intense awareness of nature and the environment among the participants.**
- **Paraglider and hang glider pilots need take off areas facing in different directions due to wind-related factors and numbers of pilots involved.**
- **Local rules in and above sensitive areas should be respected by the pilots.**
- **EHPU members should inform pilots about the correct behavior on the ground and in the air, based on scientific findings and studies.**

## **Flying and Nature Conservation**

The following points are intended as a best practice guide for pilots' conduct in the natural world, based on knowledge and acceptance. The aim is to maintain the diversity of species and contribute actively to the conservation of nature through considerate behavior.

### ***A. Flying Areas***

Hang glider and paraglider pilots need a sufficient number of take off areas, for launching in different wind directions, within a reasonable distance to their homes.

Hillsides or towing areas are required for taking off with a hang glider or paraglider. Hillside areas consist of the basic take off area and an obstacle-free departure area and are relatively small. Landing is normally on agricultural meadows or on beaches (coastal flying). Some flying areas do have specific rules and regulations for using the take off and landing strips which must be noted and adhered to by the pilots (i.e. flying over sensitive areas, distance from raptor habitats, etc).

Intensive usage of a flying area may create tracks. Some plants are resistant to being walked over. But in steeper and humid grounds the vegetation is exposed to a higher stress by walking over. On an intensively used takeoff site there are good chances that the vegetation will change to a more stress resistant vegetative ecotype.

Slopes can be reinforced by technical aids in the event that there are undesired erosion occurrences. The type of material to be used has to be individually decided upon at the site. National organizations or the EHPU can provide help with information material. The basic guideline should be: "Use as little technical support as absolutely required". The procedures to be applied depend on the underground, the humidity, the substratum, the down grade and the walking/trampling frequency applied to the area. There are various experiences with the application of rubber-, plastic- or coco matting and lathing constructions. In general the use of biodegradable materials or the conservation of the original vegetation is preferred to artificial materials and timbering.

Many hillsides (especially in low mountain ranges) have been used as grazing land for cattle. The open areas that resulted from this have a great influence on biodiversity. The apparent vegetation types (neglected and dry grassland) have their very own and specialized diverse flora and fauna. These areas diminish with any reduction of grazing and revert to bush land. To use these areas as a take-off pad, thereby maintaining them open, can be useful in preventing this.

Some neglected grass lands do accept moderate walking/trampling and have to be mowed frequently to avoid entanglement and bush growing. Hang gliding and paragliding clubs can provide precious caretaking and development services in close cooperation with the relevant local nature conservation authority.

Flying activities on agricultural areas are unobjectionable from a nature conservation point of view.

### ***B. Hang Glider and Paraglider Influence on Wildlife***

#### **1. Precise Identification Ability**

Wild animals are capable of identifying dangerous animals (predators) and differentiating them from harmless animals. The correct identification of the possible risk is very important to avoid unnecessary stress and energy consumption.

Marmots for example are able to discern their most critical enemy, the golden eagle, from a harmless but similar looking silhouette, the griffon vulture (Zeitler 1995). Mallard ducks are able to discern between the harmless common buzzard and the dangerous female hawk (Ranftl 2003). Hang gliders and paragliders do not have a bird of prey silhouette that would project such a dangerous situation on other animals.

## 2. Moment of Surprise

Extreme reactions from animals (such as fugitive retreats) are to be expected if hang gliders and paragliders appear unexpectedly, and close by, for example after a ridge crossing. Inexperienced animals especially have too little time to estimate the risk and they go for precautionary cover, due to the close proximity, the moment of surprise and the size of the object. Head on passes with animals also creates sudden retreat reactions if the minimum safety range is violated. Even loud human voices from quiet flying objects can surprise wild animals and create stress situation that end in a fugitive retreat.

## 3. Adaption

Extreme reactions from wild and domestic animals within the glide angle areas of a moderately frequented take off area are rare. Wild and domestic animals that live close to a moderately frequented take off area become used to hang gliders and paragliders and rarely react to their presence.

The ability to learn and adapt helps to avoid unnecessary energy consumption. The prerequisite for this learning ability is repeated and positive experience. Common buzzards and deer are often to be seen close to highways. They learned that objects moving on the roads stay there all the time and do not present any danger. Some birds do live and breed very successfully even close to the runways on airports. Surprising situations resulting from individual actions that are outside the normal routine can destroy long acquired confidence within seconds.

Learning and adaptation abilities are quite different with the individual species. Deer, for example, adapts relatively easily to changing environmental conditions. That is one of the reasons why we meet deer in different surroundings, even close to settlements. Chamois, deer and red deer can be seen regularly in high activity flying areas from the air. More often we see wild game grazing in the meadows of towing areas even when flying activities are present.



Griffon vulture and hang glider (pic: Jörg Bajewski)

## 4. Landscape Structure and Habitat Quality

The opportunity to take cover is essential for most wild animals. Textured ground with ditches, basins and humps provides cover and safety. Vegetation is another essential factor in this. Wild animals feel generally safer in woods, bush land and mountain pine covered areas. Wild game reacts more sensitively in open areas as cover is further away for larger animals.

Favorable habitats will provide cover, along with the opportunity to see the predator far out so giving enough time to react to him. The animal's sensitivity to disturbances is therefore significantly lower in high quality habitats than in low quality habitats.

### **5. Influences of Daytime and Seasons**

The quiet twilight times in the early morning and evening are very important for many species to gather food, mark territories and find partners (activity rhythm). These are generally no-fly times due to non-existent thermals. If flying in twilight at all, pilots should stay relatively high and with enough lateral distance to the ridges.

During winter times most of the animals have a negative energy balance. Finding food is very complicated and fugitive retreats are very energy consuming, especially on snow. Not having enough time to feed due to disturbances in the habitat creates bad chances for survival.

Young blood has to be raised in spring. Breeding and raising takes into early summer with some species. The animals are a lot more sensitive to influences from the outside in these times. In the worst case, they leave their offspring and do not continue rearing and feeding them. Birds of prey may react very sensitively to flying objects in the surrounding of their breeding area during the rearing time.

### **6. Flying Altitude and Lateral Clearances**

Different species react dissimilarly to the presence of hang gliders or paragliders. A bird in a hedge has a different safety distance than a deer on open area. Lateral clearances and altitudes above ground of 300 m and more are considered non critical for mammals in frequently used flying areas with good cover opportunities. If there is a flying area which is rarely used, these values should be increased to 400 m and more to avoid disturbances. Prolonged stationary hovering above wildlife is very disturbing and should be avoided.

Birds of prey do react sensitively to flying objects close to their breeding places during the rearing phase. Biologists recommend maintaining a 300 to 500m clearance from Golden Eagle breeding places. Golden Eagles will indicate their "do not disturb area" with the so called "garland flight". The bird falls down and climbs again repeatedly, similar to a wave (see picture below). The bird signals significantly that it wants the pilot to turn away. Some of the birds (also other birds of prey) do amplify this by loud yelling and other fancy maneuvers.



Garland Flight of a Golden Eagle (pic: Henning Werth)

The individuals of a certain species may have different tolerance levels. This can be proved by the successful breeding of Peregrine Falcon couples in close proximity to take off areas, while other couples require more distance from such places.

Real attacks from birds of prey against hang and paragliders are very rare. In most cases there are only bluff charges or attacks on the canopies. Further away from the breeding areas it is common to be able to climb in thermals together with birds without having any aggressive reactions. Indeed birds will join hang gliders and paragliders in thermals, just as they would join with other birds that are thermalling.

## **7. Cross Country Flights**

Hang glider and paraglider cross country flights are generally conducted at high altitude and do not concern wild animals, especially in the middle- and lowlands. Problems may arise when pilots arrive very low after valley crossings and try to get higher again.

## ***C. Bibliography***

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