

ILLEGAL POISONING AND TRENDS IN ANDALUCÍA 2003 - TODAY

Background

Andalucía is a vast region, neighbouring Morocco to the South, Portugal to the East and Extremadura, Castilla-La Mancha and Murcia to the North. The region is featured by a wide range of different landscapes and ecosystems, accounting for the highest Iberian altitudes (nearly 4,000m ABSL) to coastal marshland, forest, deserts,... as well as the stronghold for many of the European treasures of biodiversity. Similarly, Andalucía homes an important mosaic of human cultures and people, each with peculiarities and depending largely on natural resources from ancient times. Hence, today Andalucía as a whole spans a complex of many different landscapes, cultures, ecosystems and biodiversity.

On the same line, it should be pointed out the use of poison has been traditionally embedded from Pre-Roman History periods not only in the territory, but in the whole Mediterranean Iberia itself for different purposes: medicine, solving domestic conflicts and the like, to a point that it is deeply embedded in culture. Interestingly, Iberians were known to wear and their belts small leather bags containing natural poisons to kill enemies or merely as medicine. So, the first enemy to target as far as antipoison fight is concern by any Spanish regional Administration and a major challenge, is to actually deter rural human populations from using poison and remove this ancient practice from current available set of tools to manage the environment.

State-of-the-art

For several circumstantial reasons, incidence of illegal poisoning in Andalucía in the early 2000's was alarming, as reported by published data and available information.

The use of poison to wipe out vermin and generalist predators in the region reached a significant peak in the late 1990's, so that years 1998 and 1999 may well be referred to as the most critical in this context over the last decades. As a consequence, wild populations of certain threatened species underwent a worrisome decline both globally and locally to the point some populations became extinct, namely Red and Black Kites and more importantly Egyptian Vultures. Other vulnerable species came across an overall cut down in population numbers like Black Vultures to the point population viability analysis undertaken by experts suggested showed an extinction rate around 10% annually, clearly overstepping the affordable threshold for the entire population.

As a result of the situation the regional Govt of Andalucía deployed all available resources at the time, both human and technical in order to bring poison incidence down to levels tolerable by these highly vulnerable species. After the critical situation at the beginning, each province conducted individually local

piecemeal programs in their respective territories with the clear intention to arrest the devastating effects of the problem. This can be then considered the first stage of the long-term fight against the threat from these toxic compounds in Andalucía.

On the early stage teething problems arose in accordance with the complexity of the problem. Poisoning is an extremely complex problem to approach, for a wide array of technical, ecological and resources reasons and solutions had to be tailor-made and specifically designed on each particular case at levels of species involved, place and toxic compound. It became evident then that poison respond to different motivations and in turn, this model the features and traits of incidents in each particular area. In other words, no two poisoning incidents are the same and the skills to correctly pinning down the differences, makes the difference between failure and success in their resolution.

Soon after this first or early task force was implemented as a response to a crisis situation, it became clear that new, more solid and planned measures were to be conducted, but this time not on a local perspective. It was evident that a global multi-approach was most needed, including measures from very different angles and addressing objectives in short, medium and long terms. It was also obvious that the new approach had to face the issue from all possible points of view to consolidate a global strategy allowing local variations according to areas and provinces.

The former first stage of antipoison fight produced valuable information to characterize poisoning in the territory, accounting for some 60% motivated by hunting related issues or game management missparctice, 30% farming related and a remaining 10% belonging to other causes, mainly personal conflicts.

Thus, once the first emergency measures were implemented, the problem evaluated and the needs and aims correctly targeted, the Regional Govt. (Junta de Andalucía) proceeded onto a further stage and set up a long term project: *Estrategia Andaluza de Lucha contra el veneno* (Andalusian Strategy Against poison) (hereinafter referred to as EAV), addressing poison from all perspectives and key players involved: hunters, farmers and society in general. Despite reducing poisoning incidence seemed to be out of reach at the beginning, the situation was critical and there was a real need to face the problem directly. Hence, in order to achieve these goals, EAV was provided with a solid 0.9 million-euro budget annually and five full time experts, coordinated within the scope of Dirección General de Gestión del Medio Natural.

Summarizing, EAV comprises 62 specific actions, grouped into modules:

- Prosecution of the offence
- Social education/information
- Poison detection and creation of UCE (*Unidad Canina Especializada*), by the first time in Europe,

starting in 2003 and coming into action at the beginning of 2004

- Legal actions, both at Penal and Administrative levels
- Defining and implementing field protocols
- Creation of a Data-base with all relevant data and the Map of Hot Spots for poison in Andalucía
- Creation of a new highly specialized reference laboratory CAD -Centro de Análisis y Diagnóstico- equipped with all needed resources in toxicology, protocols and forensic approach.
- Prevention and inspections on hot-spots
- Information visits to potential cotos de caza (hunting states) and potential farmers
- Training programmes and advanced courses for Guardia Civil and Agentes de Medio Ambiente and providing them with equipment and resources
- Training for the main cutting edge of the fight against poison: BIVE (Brigadas Investigación de Veneno) for each Andalusian province and UFOA (Unidad Forense de Apoyo), a highly specialised team of five agents and four experts from Junta de Andalucía.
- Strengthening bonds and coordination between all uniformed bodies (Guardia Civil, Policía Autonómica and Agentes de Medio Ambiente) and setting up joint teams.
- Producing advanced materials for Agents (manuals, books,...)
- Developing tailor-made action plans for highly threatened species at the level of pair territories for species as Egyptian Vulture, Bearded Vulture and Black Vulture.
- Raising awareness and information to Judges, Magistrates and Public Prosecutors.
- Awareness (both on stakeholders and judges/public prosecutors)
- Establishment of SAIV *Sistema Andaluz de Indicadores de Uso de Veneno*: Andalusian System of Indicators of Poison Use

Therefore, EAV is a comprehensive long-term project, based on solid pillars and aiming realistic goals: not completely wiping out but reducing the incidence of illegal use of poison, and bring it down to a level that can be tolerated by those most vulnerable species/populations. Likewise, EAV is aiming to spread the message in rural populations against the use of poison, as the best choice to eradicate generalist predators.

Results and current situation

Up to 2013, EAV has carried out in Andalucía 2,276 information/dissuasive visits/inspections to cotos de caza (hunting states) and 855 to farmers in sensitive areas. Between 2004 and 2012, 892

emergency inspections were conducted with the canine units and 1,617 preventive or deterring inspections were undertaken to sensitive areas where poison was detected in the past.

As far as achievements are concerned, it is worth mentioning that in less than ten years the occurrence of poisoning in the region declined by about 50%. This figure clearly indicates that implemented actions proved to be effective. Not surprisingly, those key species more vulnerable to the use of poisoning either recovered significantly or broke up the declining trend they were involved in. The Egyptian Vulture is the best example and despite the situation still being critical and alarming, the decline seems to be stopped and two breeding pairs who disappeared recently have been recovered.

Indicators reveal that the incidence of poison is not so worrying today relative to what it used to be years before. Whereas one poison incident was recorded daily by 2001, today the figure has dropped to one incident every three days in general terms. Similarly, in ten years the number of baits involved per incident was reduced from 20 down to 1-3 baits. Likewise, whilst most incidents in the past used to involve threatened and wild species and/or were recorded inside protected areas, today most cases affect domestic species (cats and dogs) and take place in the surroundings of human dwellings. On the same lines, it is interesting to note that today a large part of incidents are accounted for poison put in the field at dusk and removed at dawn by poisoners, in an evident attempt to remain overlooked and undetected by agents. Though yet this masking practice still constitutes an offence, doubtlessly it is far less available to threatened bird species like vultures.

On another related matter, it should also be mentioned that the ratio between emergency vs. preventive inspections is indicative. As the graph shows, preventive clearly overcomes those undergoing emergency circumstances. This figure puts on the table how the dissuasive work is prevailing in respect to emergency actions, which were accounting for most of the work developed by the canine units at the beginning. In other words, today the more poison is searched for, the less is found.

Suffice it to say that the number of custodial convictions before EAV was implemented was only one for the whole Andalusian territory. Today, there are about twenty, and more are expected soon whose causes are waiting for an impending judge sentence.

Lastly, police action proved to be highly effective and strongly recommended. Before EAV was implemented, investigators managed to solve cases only when the offender was busted *in fraganti*. Conversely today, 82% of all convictions were obtained by means of forensic and crime scene investigation methods, some of them even solved and closed several years after the incident took place in the field. The use of modern techniques like fingerprints, ADN and other tools from police investigation procedures were applied to this particular field of wildlife criminalistics and forensics. Motivation is relevant and essential to encourage the agents involved in the

investigation and prosecution of poison and must be addressed correspondingly by trainers.

Conclusion remarks

It seems EAV achieved objectives proposed from the beginning. Protocols and methods are now well known and actions revealing effective. However, there is no ground for complacency and letting the guard down. The fight against poison is highly demanding and success is never final, but temporary. Only failure is permanent and thus, all what was achieved after many years of struggle against poison can vanish in a blink of the eye. The level of accomplishment demands a sustained strive in time and on the long term and so, investment and permanent updating approaches are most needed.