Prioritisation: Paired Ranking

**Attribution: Pairwise Comparisons have been around for almost 100 years since first being introduced in 1927 by L. L. Thurstone (creator of the IQ test scoring system) - Wikipedia.**

# Introduction

Ranking multiple alternative items can be challenging. Paired ranking is based on the principle that an overall ranking of alternatives is defined when all pairwise rankings are known. It works by comparing alternatives against each other in pairs, i.e. two alternatives at a time.

**Pros:** it is explicit, transparent and systematic.

**Cons:** it requires careful explanation and execution and it is easy to make errors. It suits shorter lists (≤ 10 items) and is unwieldy where lists are long.

**Exercise:**

We are planning for conservation of a threatened migratory bird. We have identified the following threats. We want to help a group to prioritise the most important threats to focus on in the limited time available:

* Nest predation in the breeding grounds
* Colliding with power lines during migration
* Shooting mortality during migration
* Degradation of over-wintering habitat from pollutants
* Inbreeding effects on fitness due to small population size

**Steps:**

* On a flip-chart, create a simple list of the items to be prioritised.
* Agree with the group the criterion against which the identified issues will be evaluated and write this on a flip-chart (e.g. biggest overall risk to the population)
* Apply the paired ranking steps described below to score the identified issues using the agreed criterion.
* Once the scoring is complete, number the issues on the flip-chart page to identify their priority rank (1 = highest priority).

# Paired Ranking

In this simple example we are ranking five options: A, B, C , D and E against a single criterion (which is the biggest overall risk to the population). We have the options listed on a flip-chart, in a column, one beneath the other. To this we add three columns:

|  |  |  |  |
| --- | --- | --- | --- |
|  | Prioritised | Total ticks | Rank |
| **Option A**  Nest predation in the breeding grounds | III | 3 | 2 |
| **Option B**  Colliding with power lines during migration | II | 2 | 3 |
| **Option C**  Shooting mortality during migration | I | 1 | 4 |
| **Option D**  Degradation of over-wintering habitat from pollutants | IIII | 4 | 1 |
| **Option E**  Inbreeding effects on fitness due to small population size | 0 | 0 | 5 |

1. Working by group consensus and with reference to the criterion agreed, determine which is the biggest risk – A or B? Place a tick against the one agreed on (say, in this case, B).
2. Then ask which is the biggest risk – A or C? And place a second tick mark accordingly.
3. Continue to the end of the list then, having completed the full set of comparisons against A, we move down to B and, begin again, comparing B with C.
4. By the end of this process we should have [N (N-1)]/2 ticks or in this case [5(5-1)]/2 = 10
5. We add up the ticks next to each option and assign a numbered rank.

In this case, the highest ranked issue is “degradation of over-wintering habitat from pollutants”.

**Note:** This describes how to do paired ranking as a group exercise. One way to remove the potential bias associated with group “voting” is to allow each individual in the group to complete their own paired ranking exercise. The results can then be combined to develop the final scores and ranks. This can take more time and supervision to prevent multiple individual errors.

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