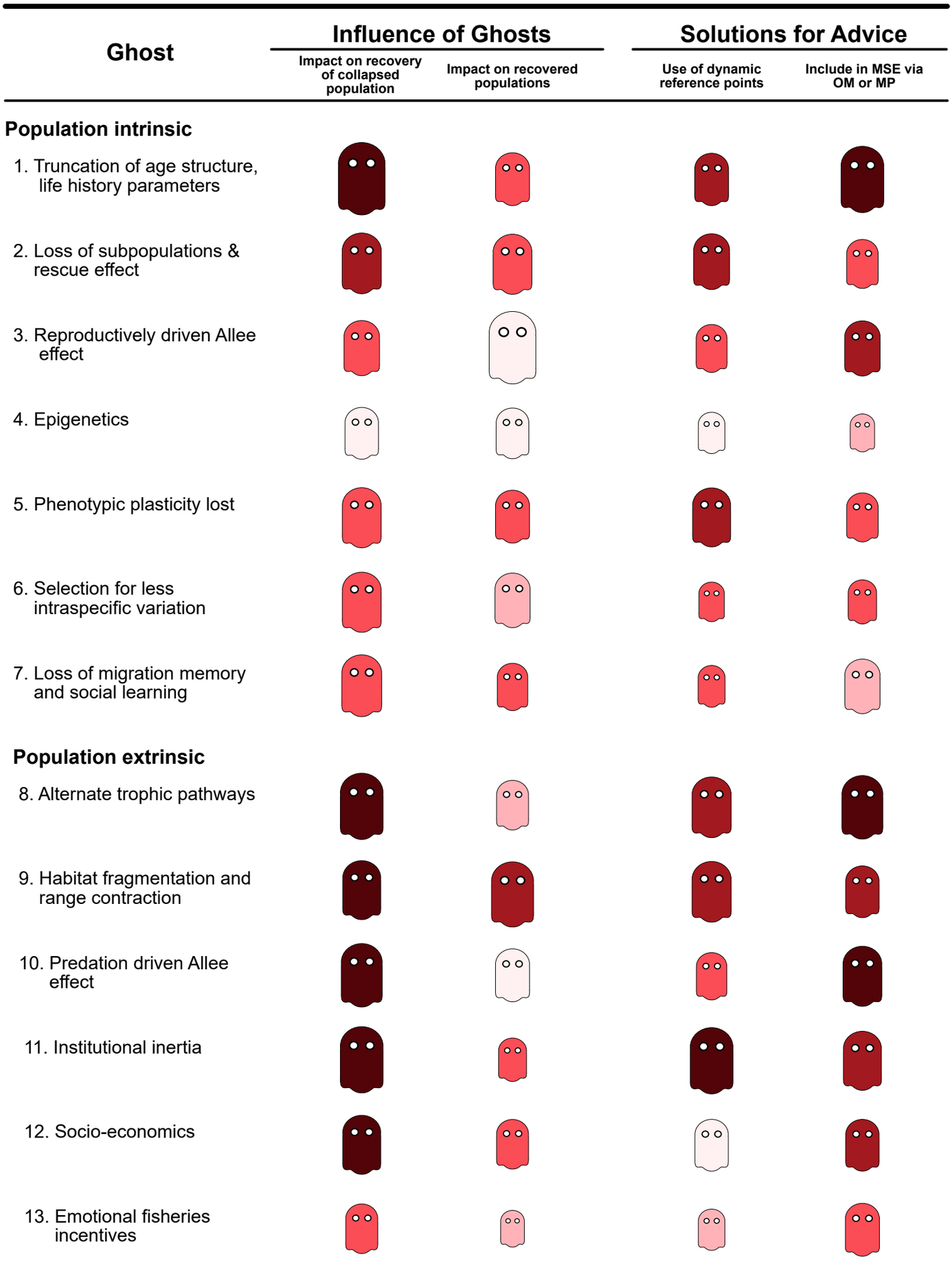
Ghost
Influence of Ghosts
Impact on recovery of collapsed population
Impact on recovered populations
Solutions for Advice
Use of dynamic reference points
Include in MSE via OM or MP
Population intrinsic
1. Truncation of age structure, life history parameters
2. Loss of subpopulations & rescue effect
3. Reproductively driven Allee effect
4. Epigenetics
5. Phenotypic plasticity lost
6. Selection for less intraspecific variation
7. Loss of migration memory and social learning
Population extrinsic
8. Alternate trophic pathways
9. Habitat fragmentation and range contraction
10. Predation driven Allee effect
11. Institutional inertia
12. Socio-economics
13. Emotional fisheries incentives
Importance
Least
Most
Confidence
Least
Most