A. Effect of Maximum Resistance:

1. Considering the equal hardship for brooding and foraging with Random initial Threshold, different maximum Resistances shown in the following table. All of the simulation done on the same World Map.
2. Resistance has a positive relationship with the foraging contribution by foragers. Hence, We can say **Resistance helps specialization.**
3. In our experimental setup there is an unexplained but recurring bias towards Foraging. That is visible in the scheme of Flat Change of Threshold (2nd row). Despite having a bias towards foraging, the higher resistance seems to decrease the effect of the bias and assimilates the result with other Threshold changing schemes.
4. In all cases, the Forage Contribution by Foragers tends to get nearer to the Percentage of Foragers. But, the Resistance plays a restraining effect on that.

|  |  |  |  |
| --- | --- | --- | --- |
|  | 20% max Resist. | 50% max Resist. | 80% max Resist. |
| No Change of Th. |  |  |  |
| Flat Change of Th. |  |  |  |
| Gradual Change of Th. |  |  |  |

B. Effect of threshold changing Scheme and Initial Foraging Threshold: (50% maximum Resistance)

|  |  |  |  |
| --- | --- | --- | --- |
|  | 75% initial Foraging Th. | Random Initial Threshold | 50% Initial Foraging th. |
| No Change of Th. |  |  |  |
| Flat Change of Th. |  |  |  |
| Gradual Change of Th. |  |  |  |

1. Both Flat change of Threshold and Gradual Change of threshold have almost similar effect on the Foraging contribution by forager, for different Initial Threshold condition.
2. In case of Random Initial threshold, **Gradual Change in threshold works better for** removing the bias in the experiment setup and preserving specialization than **Flat change.**
3. Comparing 75% initial foraging Threshold and Random Initial Foraging threshold, it is observed that, **Random initial threshold preserve better specialization.**

C. Effect of path difference. (Random Initial Threshold with 50% Resistance)

|  |  |  |
| --- | --- | --- |
|  | Easier path for Forage | Equal Path for Forage and Brood |
| No Change of Th. |  |  |
| Flat Change of Th. |  |  |
| Gradual Change of Th. |  |  |

Path difference has little effect on the specialization preservation. The only difference that is visible is, that in case of biased distribution towards the shorter path, the Opposite threshold is attained earlier by easier path which suddenly drops the Specialization preservation.