Predicted responses of predator and prey to high ambient temperature

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| **Behaviour** | **Explanation** | **Predicted change at high temperature** | | | **Consequence for predation risk** | | |
| *wild dog (23kg)* | *impala (40kg)* | *dikdik (5kg)* | *impala* | *dikdik* | *relative risk* |
| Habitat selection a) woody cover | All move to more shaded habitat. Smaller-bodied species are more vulnerable to radiant heat and show strongest response. | intermediate  -no change | Biggest increase in habitat density  - yes | Small increase in habitat density  -yes | increased predation risk as more vulnerable in denser habitat | smaller increase in predation risk | dikdik>impala  -no |
| b) glade use | Impala use glades to avoid predation, particularly at night | Target glades more at night  - hunting more at night  -not targeting glades | In glades regardless of temperature  - yes | Outside glades regardless of temperature  - yes | Higher predation risk as targeted in glades at night by wild dogs | Same predation risk as does not spend time in glades | impala>dikdik  -no |
| Time spent foraging | All spend less time foraging, predator shows greatest response because hunting generates more body heat than grazing/browsing | Spend less time hunting    - yes | smaller change  ? | smaller change  ? | lower predation risk as less likely to be found before end of hunt | increased predation risk as wild dogs select less rewarding more abundant prey | dikdik>impala  -yes |
| Chase distance | all species overheat when running, but largest-bodied species overheat first | Intermediate  ? | greatest reduction in chase distance  ? | smallest reduction in chase distance  ? | greater predation risk as larger than wild dogs and overheats first | lower predation risk as smaller than wild dogs and overheats less | impala>dikdik  -no |