# Crayfish SESI Core

Unsuitable FGAP habitat types:
mangrove mixed woodland swampagricultural
pine salt marsh palmetto open water urban

Suitable FGAP habitat types:
all others

Get next day

*for (x,y) in study area*

if( water > 0):
increment
hydroperiod count

*yes*

More days to
process in this
year
?

*no*

for (x,y) in study area

IndexMap(x,y) =
hydroperiod $*$ habitat $*$ drydown
factor       factor       factor

hydroperiod factor:

0 if hydroperiod < 60 days
1 otherwise

habitat factor:

0 if 500−m pixel (x,y) contains:
 > 1% urban types
 > 15% agricultural types
 > 60% unsuitable types (combined)

*otherwise:* HSI*MF

*where:*

HSI = % of 30−m pixels of
 suitable habitat in 500−m pixel;
for P.alleni:
 if Muhlenbergia > 60%, MF=1
 *otherwise:* MF = 0.85
for P.fallax:
 if Muhlenbergia > 60%, MF=0.85
 *otherwise:* MF = 1

drydown factor:

| Dry event history | | | P. alleni | P. fallax |
|---|---|---|---|---|
| Yr | Yr-1 | Yr-2 | factor | factor |
| 1 | 1 | 1 | 1.0 | 0.2 |
| 1 | 1 | 0 | 0.8 | 0.4 |
| 1 | 0 | 1 | 0.4 | 0.6 |
| 1 | 0 | 0 | 0.8 | 0.6 |
| 0 | 1 | 1 | 0.6 | 0.4 |
| 0 | 1 | 0 | 0.6 | 0.8 |
| 0 | 0 | 1 | 0.4 | 0.6 |
| 0 | 0 | 0 | 0.2 | 1.0 |

*where* **drying event = 1**
**if hydroperiod <= 11 mo.**