

st



K žK ĚcfÍ`YUfb]b[le[Yh YzfYgdYm]b[
cbYUch YzUbXi bXfgLbX]b[YUW`ch Yf`]b`UWi bfm

i ggc bZ5W]`Yg">i gicj Yf'k c'a]`Ybb]U`UmfzUblgk YfY
fY!ja U]bYXUga ci blgZcf Ua]b]Ui f]nX`i a UbWj Ufm
UbXUgk Uff]cfg]b 7`U_ H`ca Ug

7 ž /:][" E'

7Uf`hcbg]bhfd`mYh]Wgna V]cgYg`WingU`]nXUci h
`mUfg`cZWYU]b]`lk c!k UingfYng`VMk Yyb`h YgcVW
hYg`cZUblg`UbX`i a Ubg`H`Yg`dU`k Ung`UFYi bXf`U]b`
Vna]l li fYg`cZgla]`Ygza Yld`cfg`UbX`fYU`]hm]b`Uflz
W`li fYz`g`WbWz`UbX`h`Wbc`c[mih`U`U`Y`Y[U]bYX`VfcUX
fYW[b]hcb`UbX`YX`h`bYk`h`]b_]b[`Uci h]h[\`hf`fYU
hcbg`]dg`VMk Yyb`Ublg`UbX`dYcd`Y" =b`h`]g`fYj]Yk`k`Y
a`cj`YUbH`i a Ub`]bhfUM]cbgZca`UcbY!k UingfYyhlc`U
a`i`h!`UbYUbXa`i`h`k`UmM`dfYggk`UmM`d`cf]b[\`ck`k`Y
\`U`YfYZ`Ua`YXci`f`fYU]hcbg`]dgk`]h`UblgZca`a`Yld`cf`
h`fci [\`Xca`Ygh]W]hcb`h`Z`"!`UYX[YX`dUfH`Yfg`]dg" =b`
Xc]b[`gczk`YYa`d`UgnY`cVgYfj`U]hcbg`UbX`XU`U`di`V]g`YX
]b`h`Y`mUfg`glbW`GY][\`di`V]g`YX`Yf`h`c`]bU`Ybh]U`

G ž E'

**Through a glass darkly- anthropomorphized
ants presage human-ant symbioses**

G fl Edfcj]XXUXM]YX`]\gtrf]W`fYj]Yk`cZ
 like

are

G fl EM`d`cfYXZ`fh`Yf`\ck`h`YgY`

Zcgg]g`fYw`YmXUbXa c`YW`Uf`WcWg`fYj]gYz]h]g`
dcgg]VYh`Uih`Yj c`i`hcbUfnrcf][]b`cZUbirca V]UW]hcb`
VnZ b[]k]`VYdi g`YXVUW]bhc`h`Y7fYLUWci`g`

Wblfc`cj YfYdfcXi Vjcb UbXbc k Urtc gYWlj YnMfYX

hY@c5b[YYg7ci bmf7U]Zfb]UÏ G5LAi gÿ a 'cZBUh
i fU' < |grfñWMI gY'GbY`]b| UbXUdfcZggcf Uh< Ufj UFX
k YFYWbg]XfYXh Ylk c'led' UbiY dYfg']b h YWi blfñ
6 / < . E'GbY`]b| k UgWYlc'
WbÙfa h Uih YÍ[fYUgYUbg] fSolenopsis

bYk]Xbh]Yg/dUfbYfg~YUfbte VYU WmX/h Ym/YWa Y
Uj Uj WYte Yj Ybhg/UbXh Ymb[Uj Y]b fYUjcbg\jdg\h Uj
8 ž8

/ 'A *cum panis*
respecere]b h YfYUjcbg\jd VmK Yb h YXca YghWmf
UbXh YXca YghWmX'D\]cgcd\ YgžgVlc c[]ghžW]hW
h]b _YgžUbXch YfgWbgXf~U]a Ug'İ]b h YWbM h
cZXca YghWmXU]a Ug'UbX~VYWa]b[!k]h~UggVU

c hcbgk]h B]a UgX Ai Ac - g Uu Ubgcb i b "]a a "

- 6 žJ"/ < ž6"6" .5bXh\YgYUk]`hY`"É`
K'K"Bcflcb/`7c"žBYk Mf_žBM ž dd"
- 6 žA " .H\Yj Ua dlfYybWwcdYX]U"É`H\Ua Yg/`
<i Xgcbž@cbXcbžI ?ž ž dd"
- 6 ž>"<"/`7 ž>@" .: cfYbg]Wbtra c`c[m'h\Y
i h`]hmcZUfh fcdcXg]b`Y[U]bj Ygh[U]hcbgž Yxb"É`7F7`
DfYgž6cWF Ucbž: @ž ž dd"
- 7 ž7"DžA ž8"ž= ž: "/`7 ž
.Dcga cfhā UfhZMga UXVnLbfgUbXh\YY b 8

: žF">" .:blfcXi V|cb'cZUdfYXUMci gfYXkccX
UblžFormica lugubrisfk na YbcdhFU: cfa |XUMZZca HUm
hSYghfba7UbXf7UbX|Ub9btra c'c|]gi A.8 .668'c 2j ® 9' T

c] aU ž f

@ ; žI "?
M hUWgZca h\Y>ci fbU`cZ\Y5ggcVUjcb`cZ\Yfc`]b[i]g
7 žH`fDXL : Y`ck g\]d`cZ\YgHfg"É`Gja cb/`
GWi gMfzBYk Mf_žBMdd" ! ""
@ !B žDF"žG !: ž8"/ J ž>"F" .
< YX]b[YW`c[]YgUbXcb[c]b[d`UbhXca Yg]Wjcb`dfcWggYg`
]b h\Y5a Yf]Wg"É: fcbhYfg]bD`UbhG\WbW . Ufh" "
@ žB"? ž6 žGF"ž5 ž5"8"/ 6
ž>"5" . 9l W g]cb`cZcfYbg]W`n]a dcfHbhU]YgXi Y
h Vi fmb[V\ U]cf Vnh\YfYX]a dcfhXÜfYUbfSolenopsis
invictaL]b]gi h\Yg]H Ug"É: cfYbgVGMbW=bhYfbUjcbU`

C 'fU h cfzF ž>'8" fØXž5bbchUcfE/`

H ž< "8" . K UXybžcfz`|Z|b`h`Yk`ccXg"È H|W|bcf`
/ : |YXgž6cgbzA 5ž` dd"
H ž7"F"ž@ ž8"5"/`C ž; "A"6"
dfcj`YX`a`cXY`Zf`gk`Ufa`fcVch|Wg|b`g`fj`Y|`UbW`VUgYXcb`
W`i`U`F`U`hca`U`U`UbX`fYdi`g|j`Yd`Yfca`cbYk`|h`X|g`W`M`Y`
X|`i`gcb"È`-bhfbU|cbU`>ci`fbU`cZDU`U`Y`9a`Yf|`Ybh`UbX`
8|gf|V|h`X`G`gh`a`g` . : ! "
H žK`"F" . A`Yh`cXg`Zf`Wg|b|`g`V`ff`Ub`Y`Ub`
bYg"È`>ci`fbU`cZ`-bg`M`G`W`bW` . U`H` " "
H žK`"F" . 5bh`U`F`W|h`M`i`f`Y`h`Yk`cb`XYz`V`Y`U`h`ž`
UbX`g`W`bW`c`Zi`b`Xf|`fci`b`X`b`Y`g`"È`Df|b`W`rb`I`b|j`Yf`g|h`m`
DfYgž`Df|b`W`rbz`B`>ž` dd"
H ž5" . I`bfi`n`X`|`Yg`a`i`g`fcca`g`U`g`W`a`d`U`|`cb`g`d`Y`
W`g`È`9bj`|f`c`b`a`Y`b`U`<`i`a`U`|`h`Y`g` . : ! "
H žA`" a.k.a. 7 žG`@`L` . 5`f`f`U`a`d`U`M`c`U`X"È`
5a`Yf|W`b`Di`V`|g`|b|`7ca`d`U`brž`<`U`f`ž`f`X`ž`7`H`ž` dd"
J ž: " . 5`f`Y`|`Yk`c`Z`cd`h`a`|`n`U`|`cb`g`k`U`fa`|`b`h`Y`|`
[`Y`b`W`|`b`g`d`|`f`Y`X`U`|`c`f`|`h`a`g`k`|`h`h`m`d`Y`!` Z`n`m`ic`[`|`W`U`F`U`a`Y`h`f`
U`X`U`h`U`|`cb`"È`G`c`Zi`7ca`di`h`b|` . : ! "
< ž5"žJ` = ž>ž? ž<`žA` ž`
9"ž< ž5"žA` ž; "/`J` žD`
|bg`W`g`Z`h`f`Y`d`f`c`g`d`W`g`Z`f`Z`c`X`U`b`X`Z`Y`X`g`W`f`|`h`m`È` : 5C`
: cfYg`f`m`D`U`h`Y` ž: cc`X`U`b`X`5`|`f`|`W`|`h`f`Y`C`f`|`U`|`n`U`|`cb`c`Z`
h`Y`I`b`|`h`X`B`U`|`cb`gž`F`ca`Y`ž` dd"
J ž" . H`Y`5`f`Y`U`L`h`f`|`c`[`n`f`|`b`W`X`|`b|`h`Y`V`cc`_`g`
5bb`|`|`U`|`cb`ž`5i`h`c`f`|`h`ž`U`b`X`5`W`d`h`b`W`"È` : U`f`U`ž`G`h`U`g`
U`b`X` ; |fci`l`ž`B`Y`k`M`f`_`ž`B`M`ž` dd"
J ž>žD` ž="`/`D` žG" . 9W`c`|`|W`
W`a`d`Y`|`|`m`|`U`b`X`d`Y`g`h`W`b`f`c`|`|`b`c`f`|`U`|`W`W`Y`Y`d`f`c`X`|`W`|`cb` .
i`b`W`j`Y`f`|`b|`U`b`U`h`c`b`c`a`ci`g`Y`W`g`h`a`g`f`j`|W`È`6f`