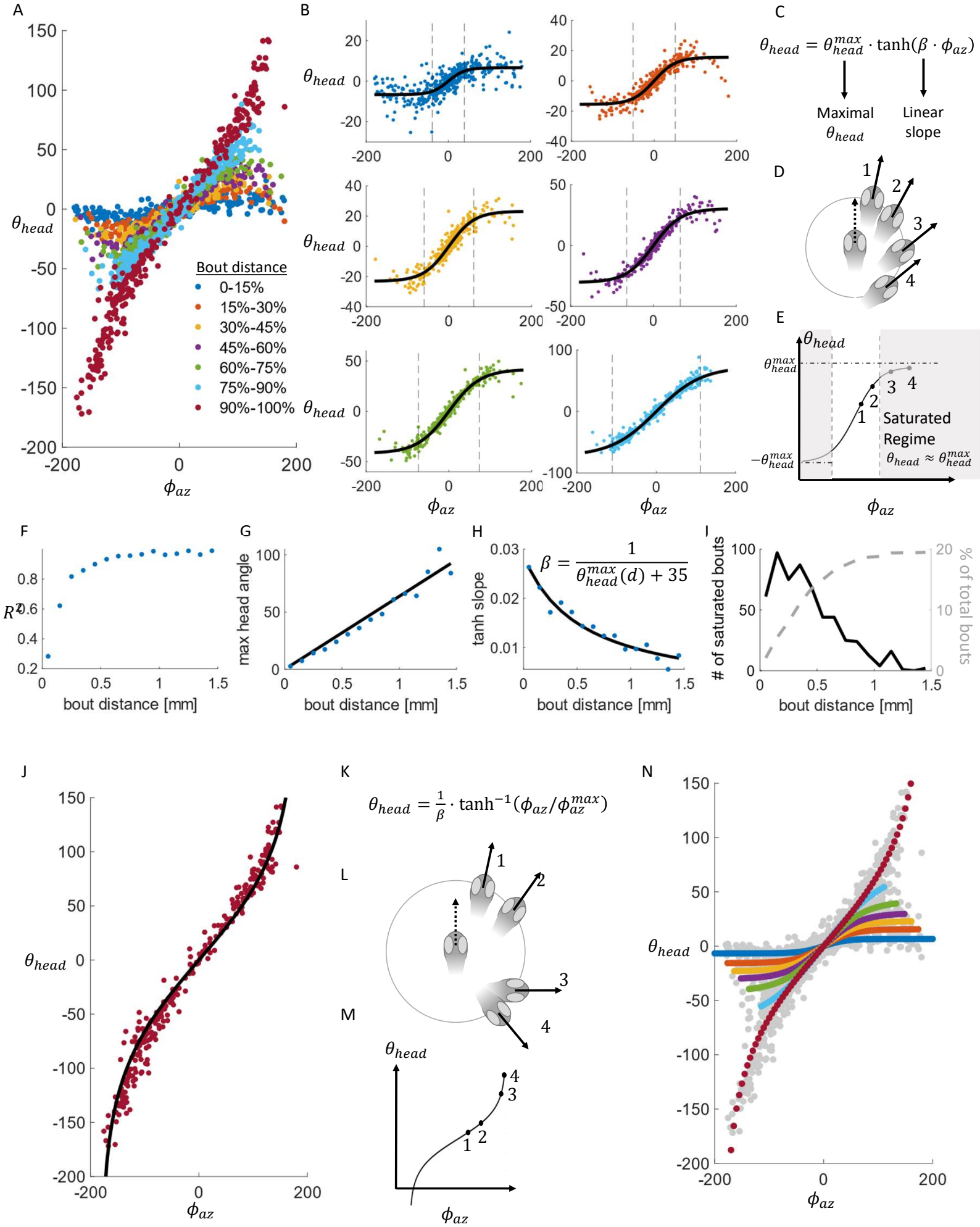
A
B
C
$\theta_{head} = \theta_{head}^{max} \cdot \tanh(\beta \cdot \phi_{az})$
Maximal $\theta_{head}$
Linear slope
D
E
Saturated Regime
$\theta_{head} \approx \theta_{head}^{max}$
Bout distance
0-15%
15%-30%
30%-45%
45%-60%
60%-75%
75%-90%
90%-100%
$\theta_{head}$
$\phi_{az}$
F
G
H
I
$R^2$
bout distance [mm]
max head angle
tanh slope
$\beta = \frac{1}{\theta_{head}^{max}(d) + 35}$
# of saturated bouts
% of total bouts
J
K
$\theta_{head} = \frac{1}{\beta} \cdot \tanh^{-1}(\phi_{az}/\phi_{az}^{max})$
L
M
N