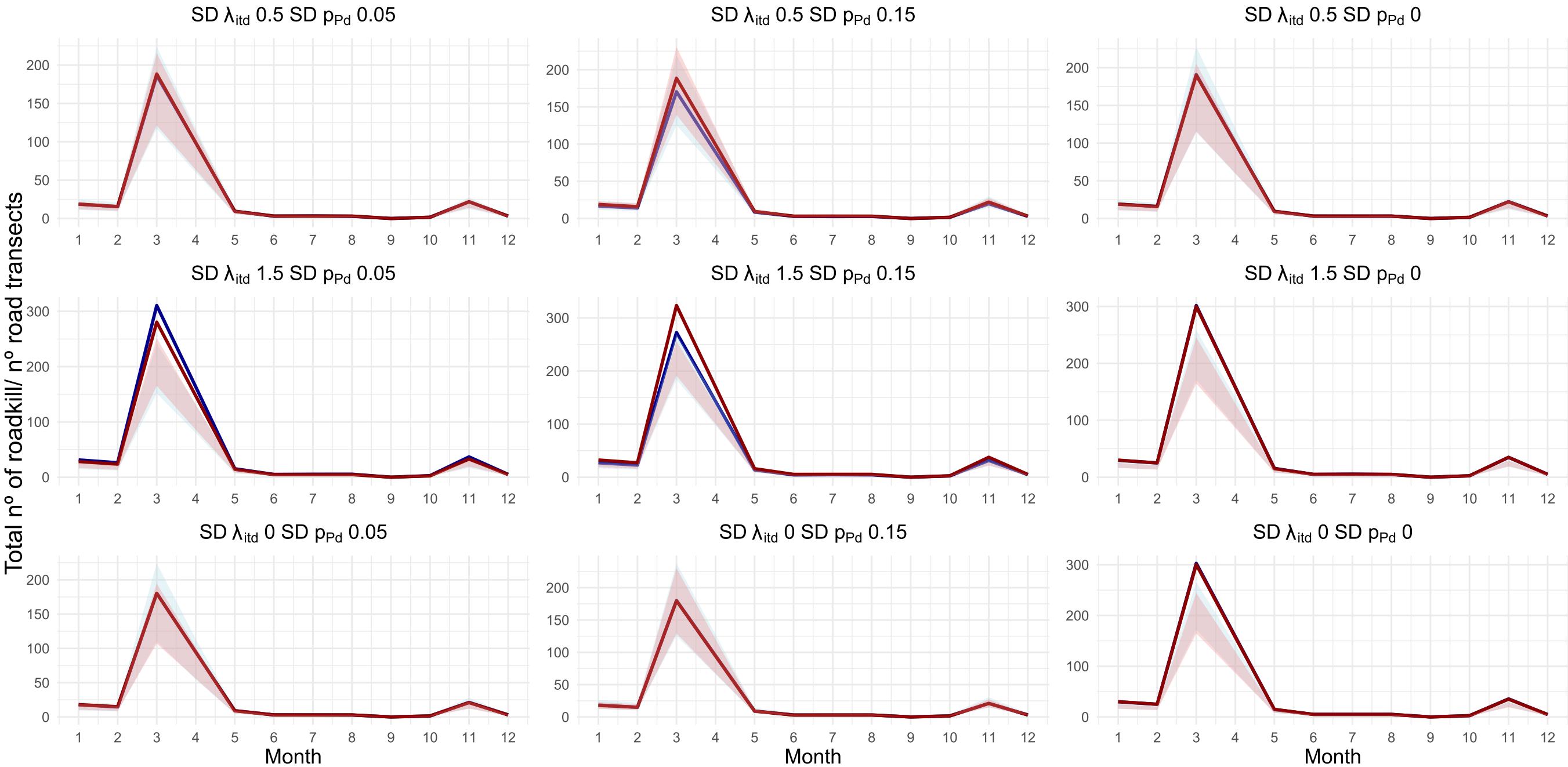


A novel method to estimate actual infrastructure-induced mortality by integrating sampling biases

Supplementary material S11: Overlap of total number of roadkill simulated values per road transect between their Bayesian estimation distribution for every vertebrate group, number of road transects, standard error in carcass location and/or persistence probability priors (SE p_L & p_P), and simulation scenario with variation in daily roadkill numbers (SD $\lambda_{t,d}$) and daily carcass persistence probability (SD p_{Pd}). Lines represent the averaged total number of roadkill simulated values per road transect, while the shaded areas show the 95% credible interval of the average Bayesian estimation distribution along 20 simulated census data.

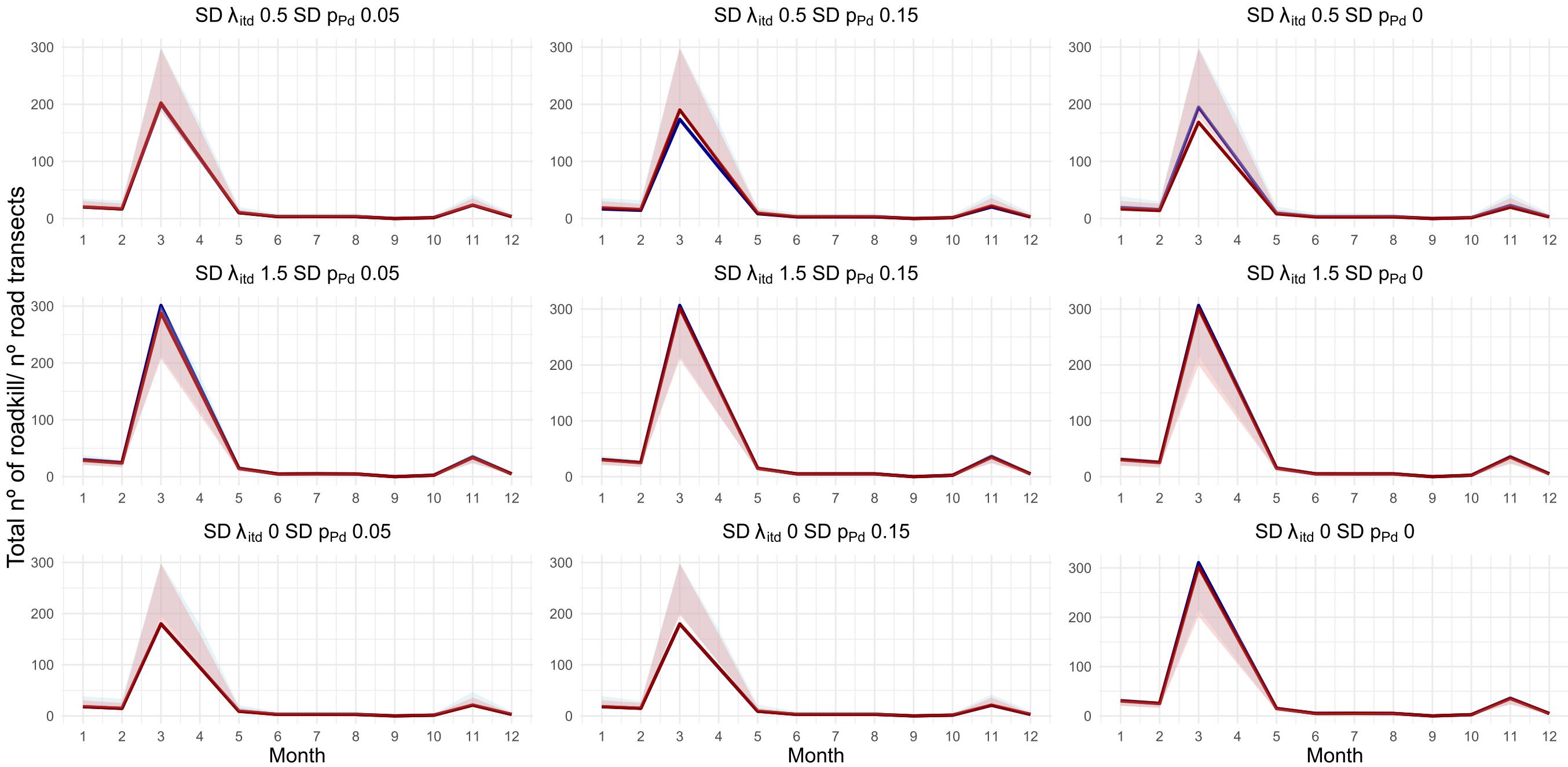
Amphibians SE $p_P = 0.05$



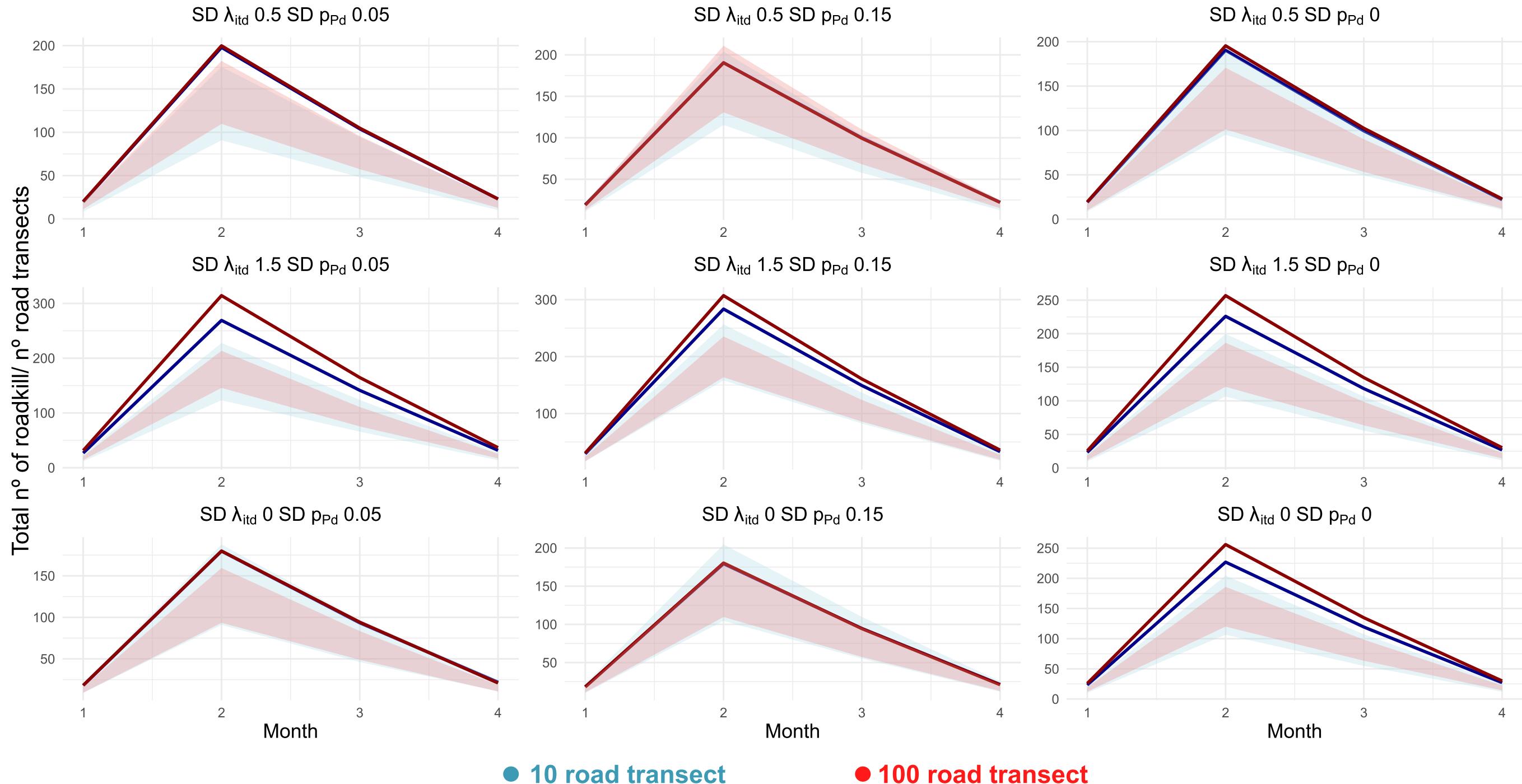
● 10 road transect

● 100 road transect

Amphibians SE $p_P = 0.10$



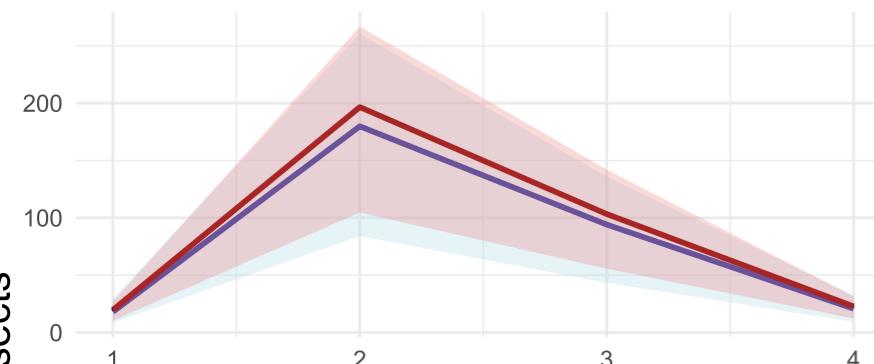
Amphibians abundance peak SE $p_P = 0.05$



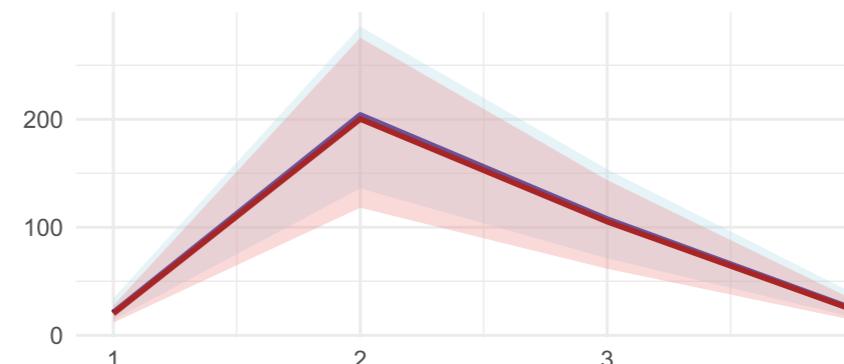
Amphibians abundance peak SE $p_P = 0.10$

Total n° of roadkill/ n° road transects

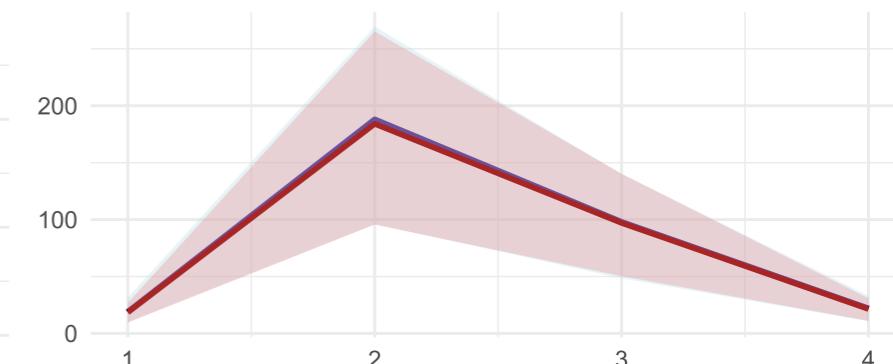
SD λ_{itd} 0.5 SD p_{Pd} 0.05



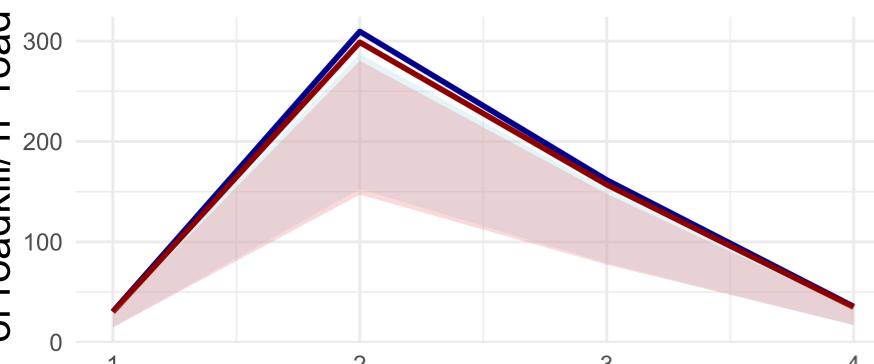
SD λ_{itd} 0.5 SD p_{Pd} 0.15



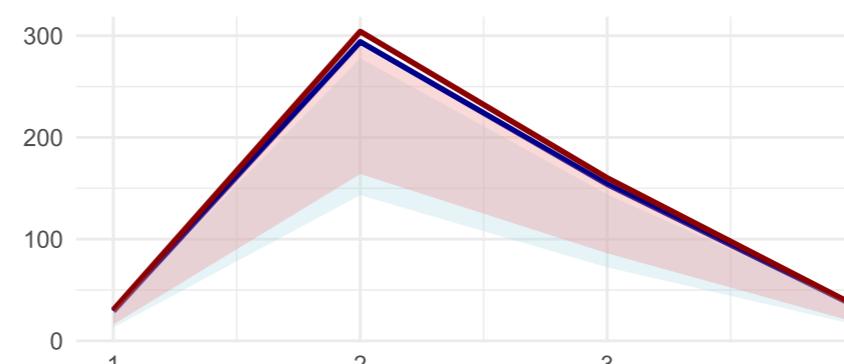
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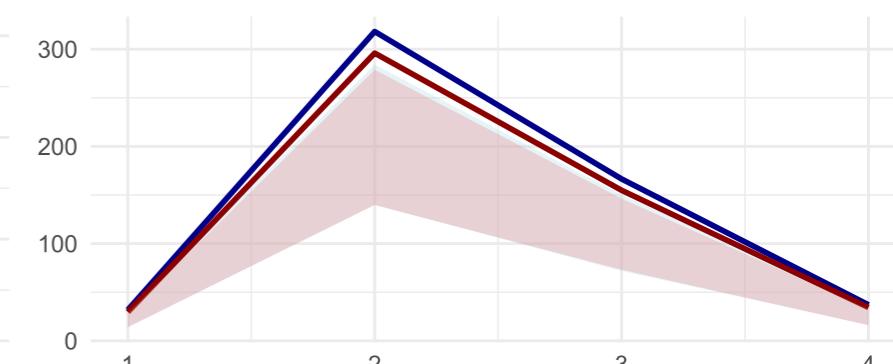
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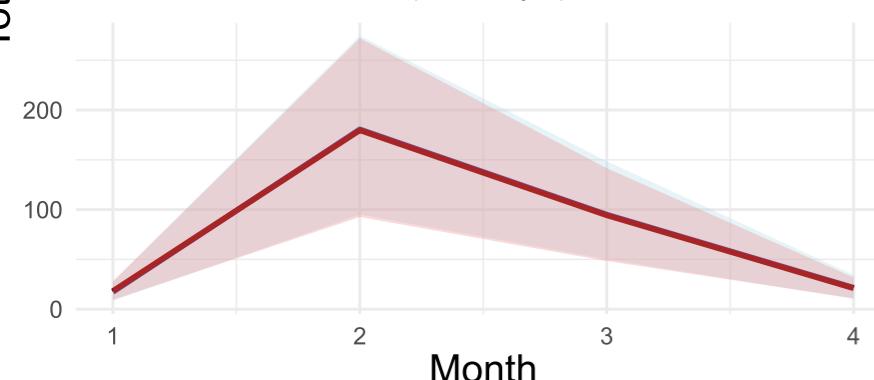
SD λ_{itd} 1.5 SD p_{Pd} 0.15



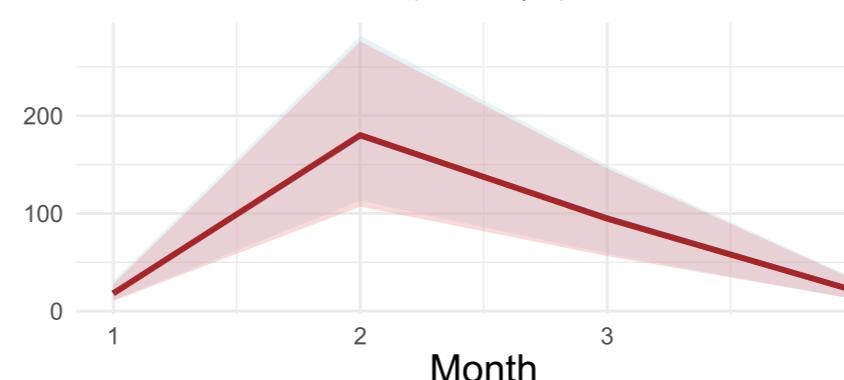
SD λ_{itd} 1.5 SD p_{Pd} 0



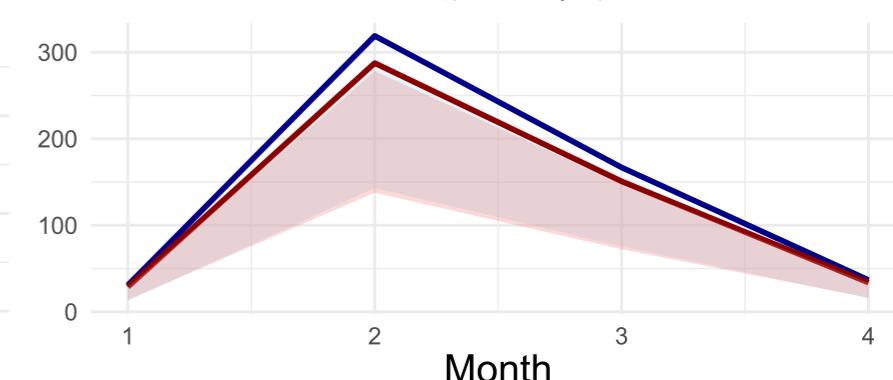
SD λ_{itd} 0 SD p_{Pd} 0.05



SD λ_{itd} 0 SD p_{Pd} 0.15



SD λ_{itd} 0 SD p_{Pd} 0

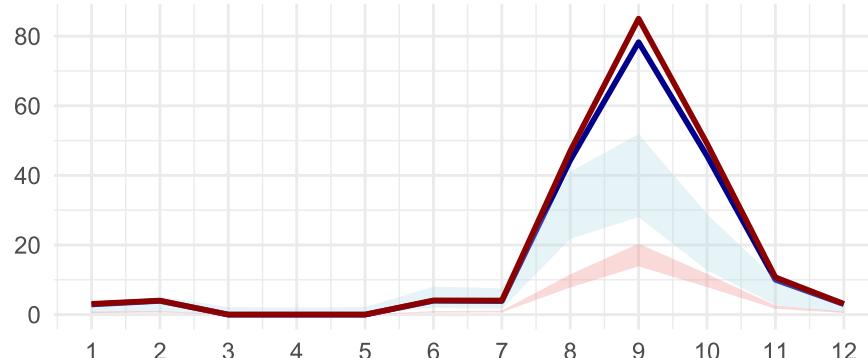


● 10 road transect

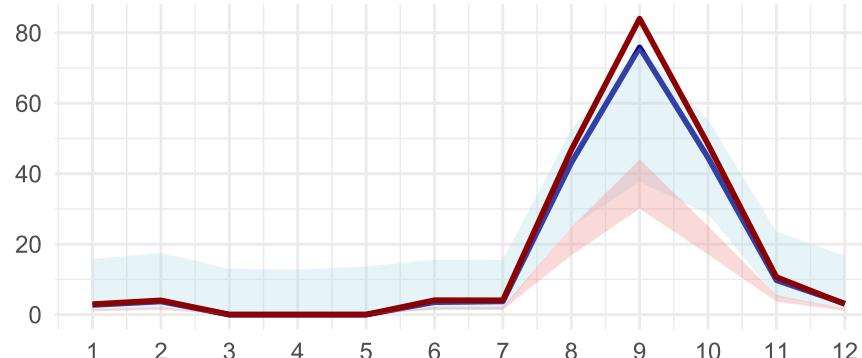
● 100 road transect

Reptiles G1 SE $p_P = 0.05$

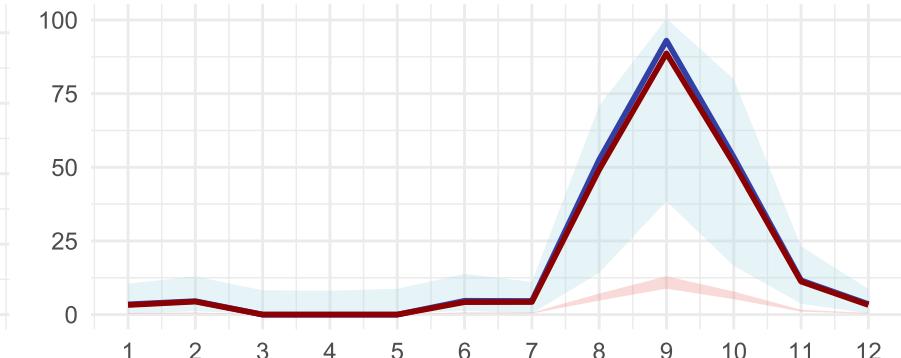
SD λ_{itd} 0.5 SD p_{Pd} 0.05



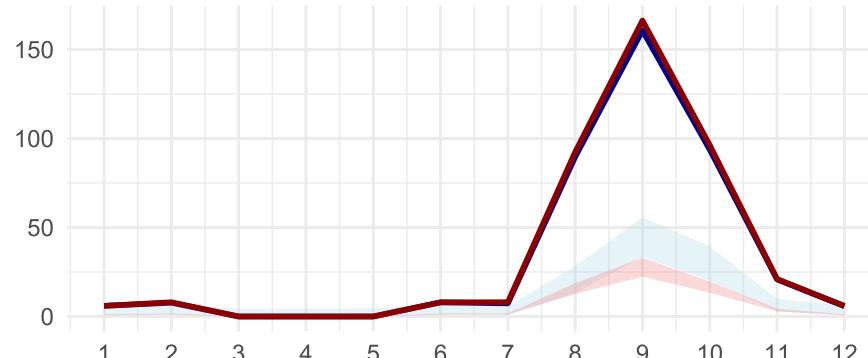
SD λ_{itd} 0.5 SD p_{Pd} 0.15



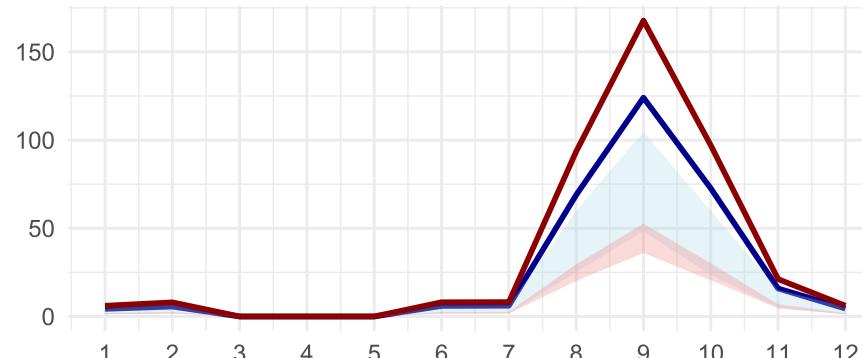
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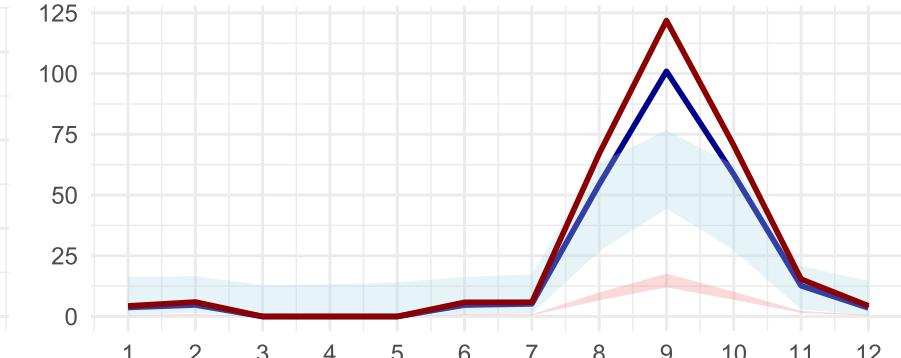
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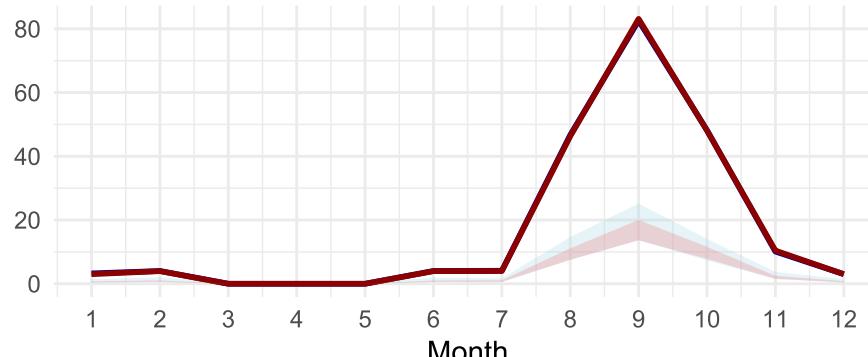
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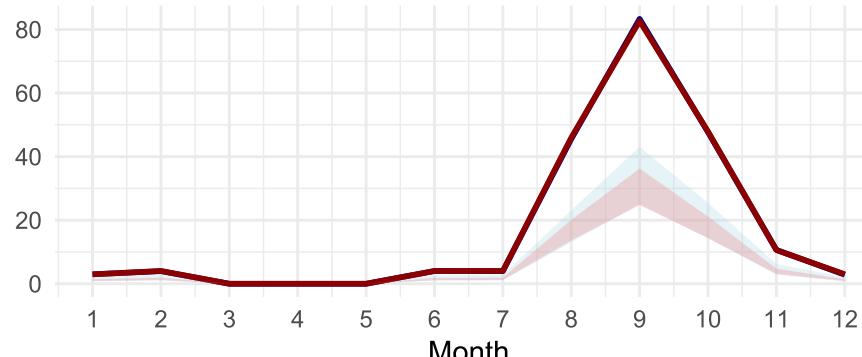
SD λ_{itd} 1.5 SD p_{Pd} 0



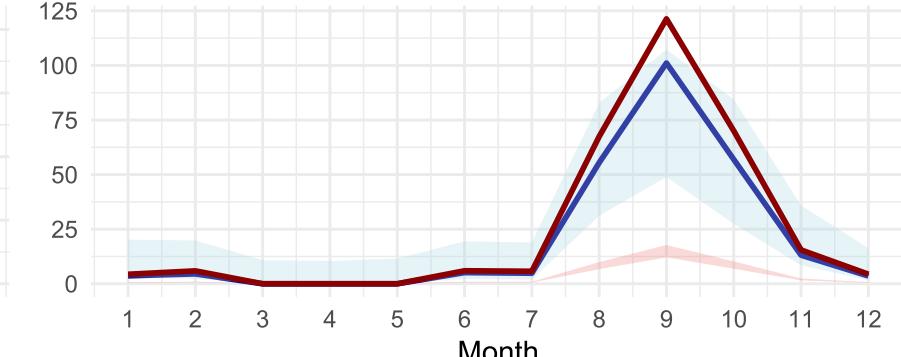
SD λ_{itd} 0 SD p_{Pd} 0.05



SD λ_{itd} 0 SD p_{Pd} 0.15



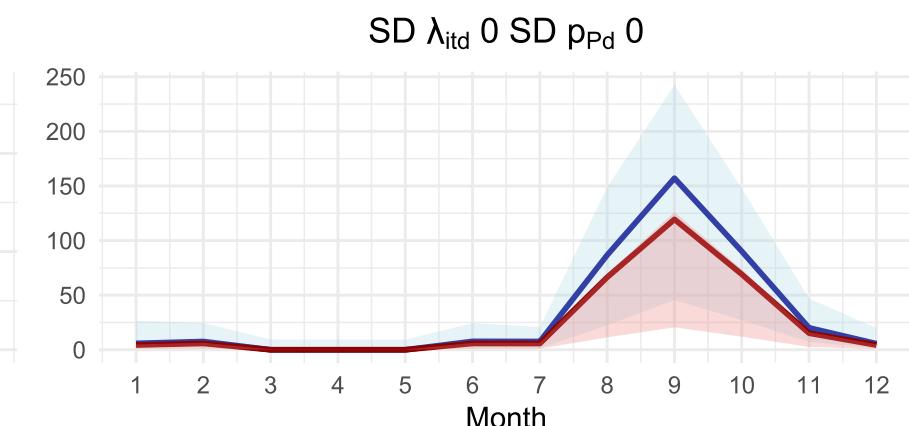
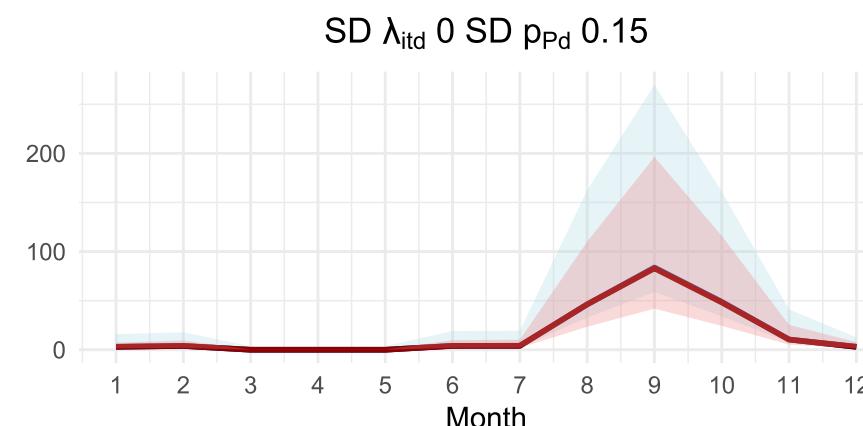
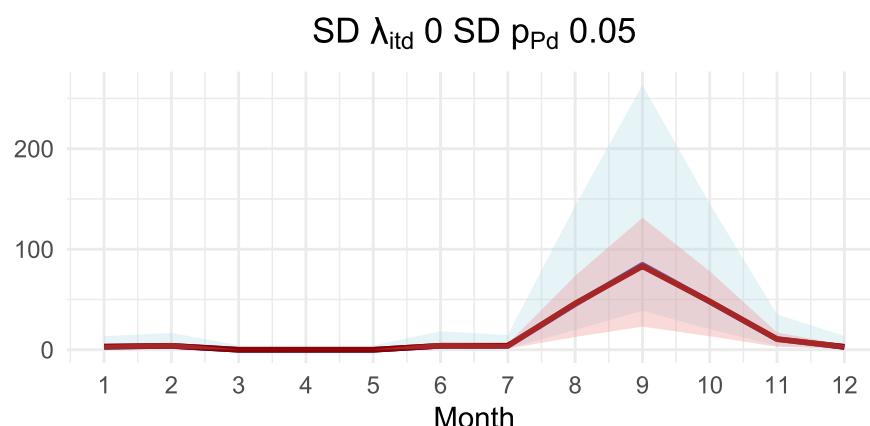
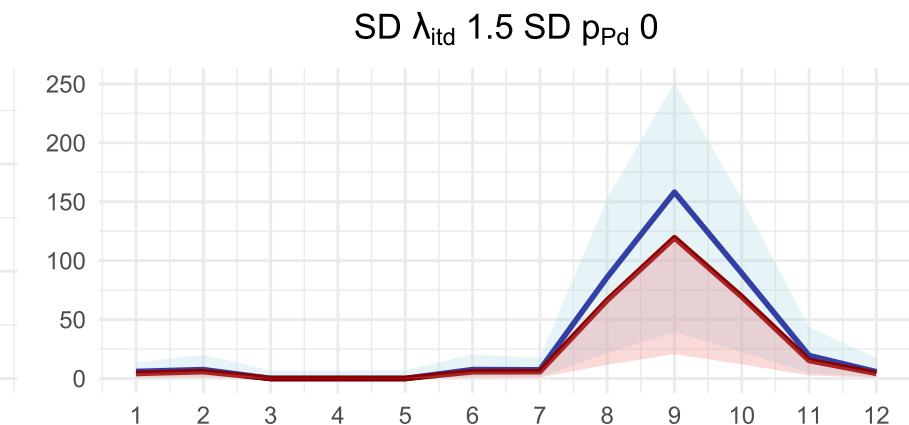
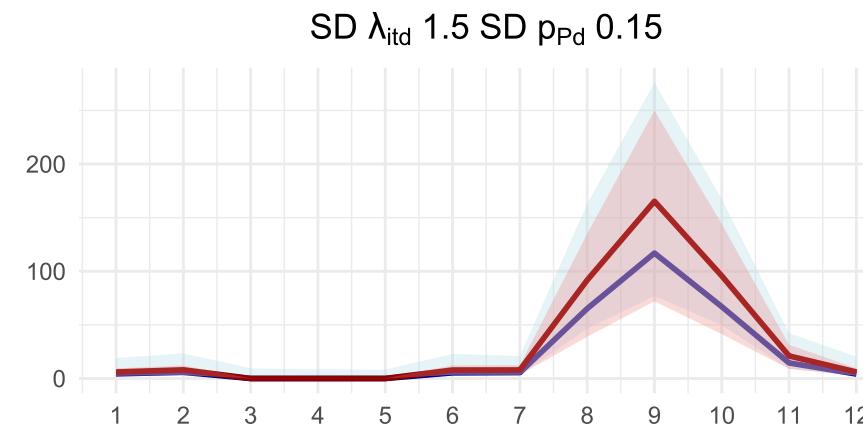
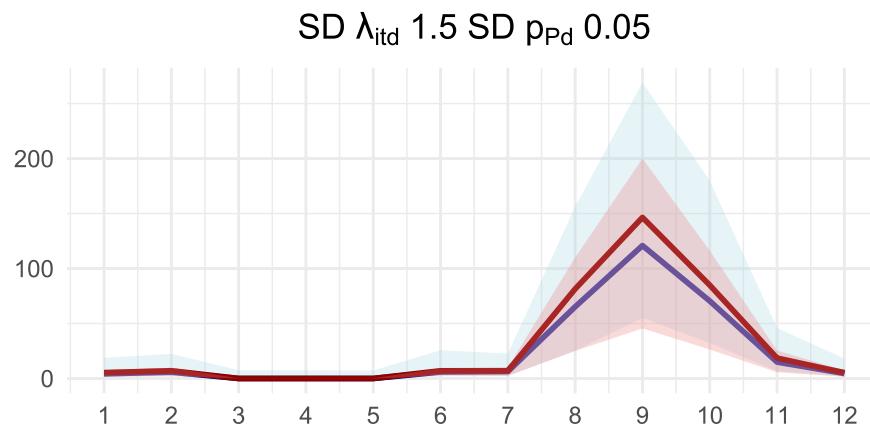
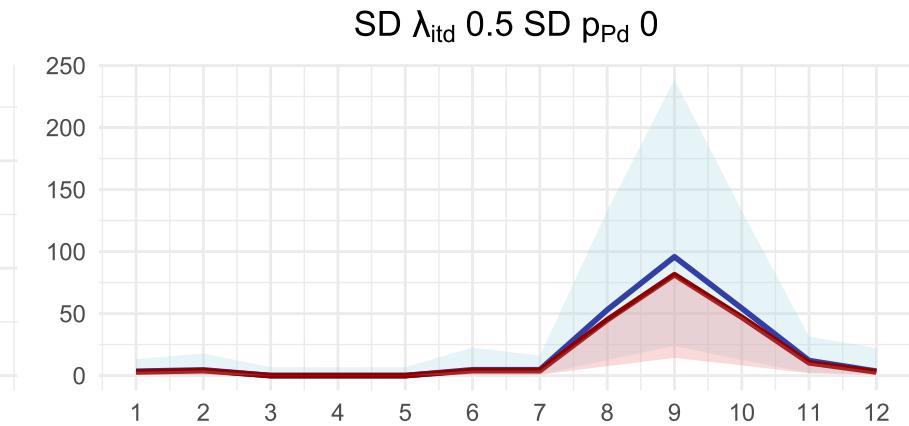
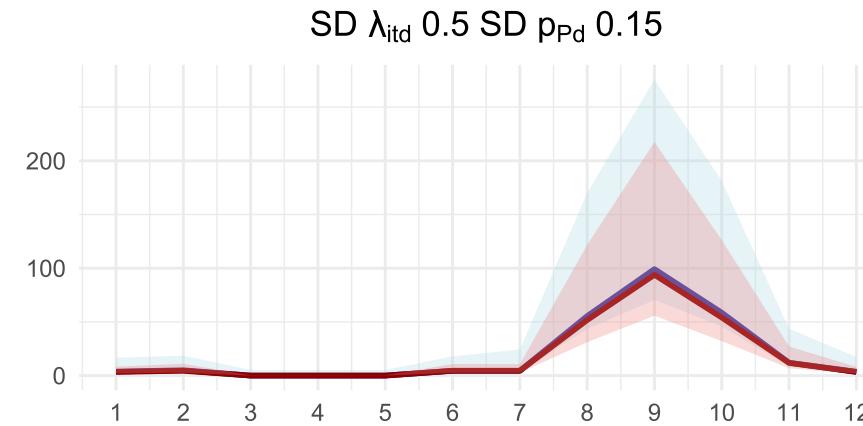
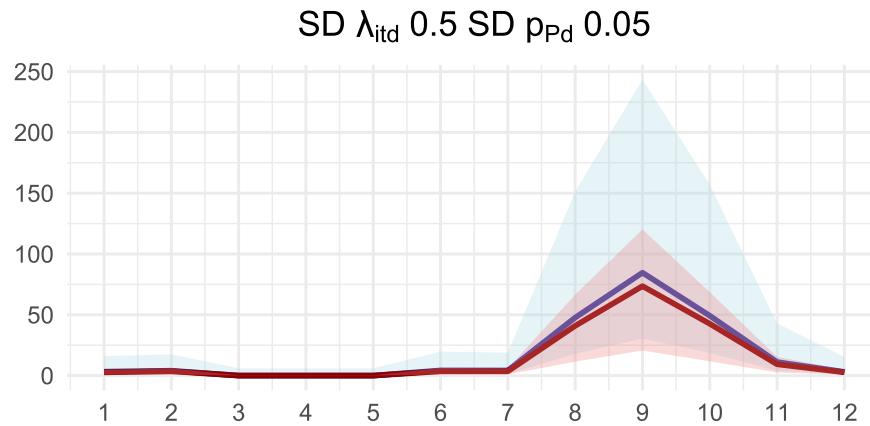
SD λ_{itd} 0 SD p_{Pd} 0



● 10 road transect

● 100 road transect

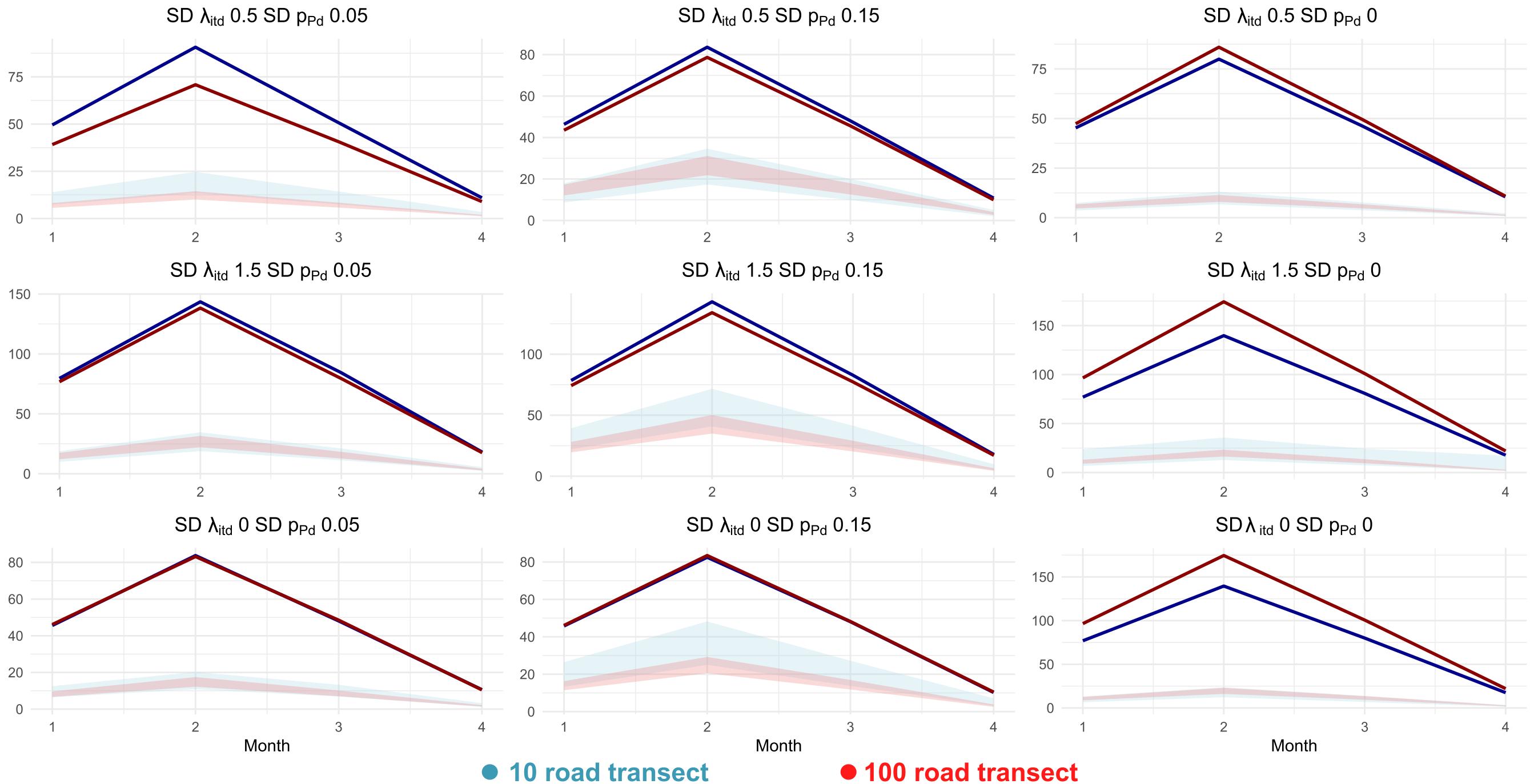
Reptiles G1 SE $p_P = 0.10$



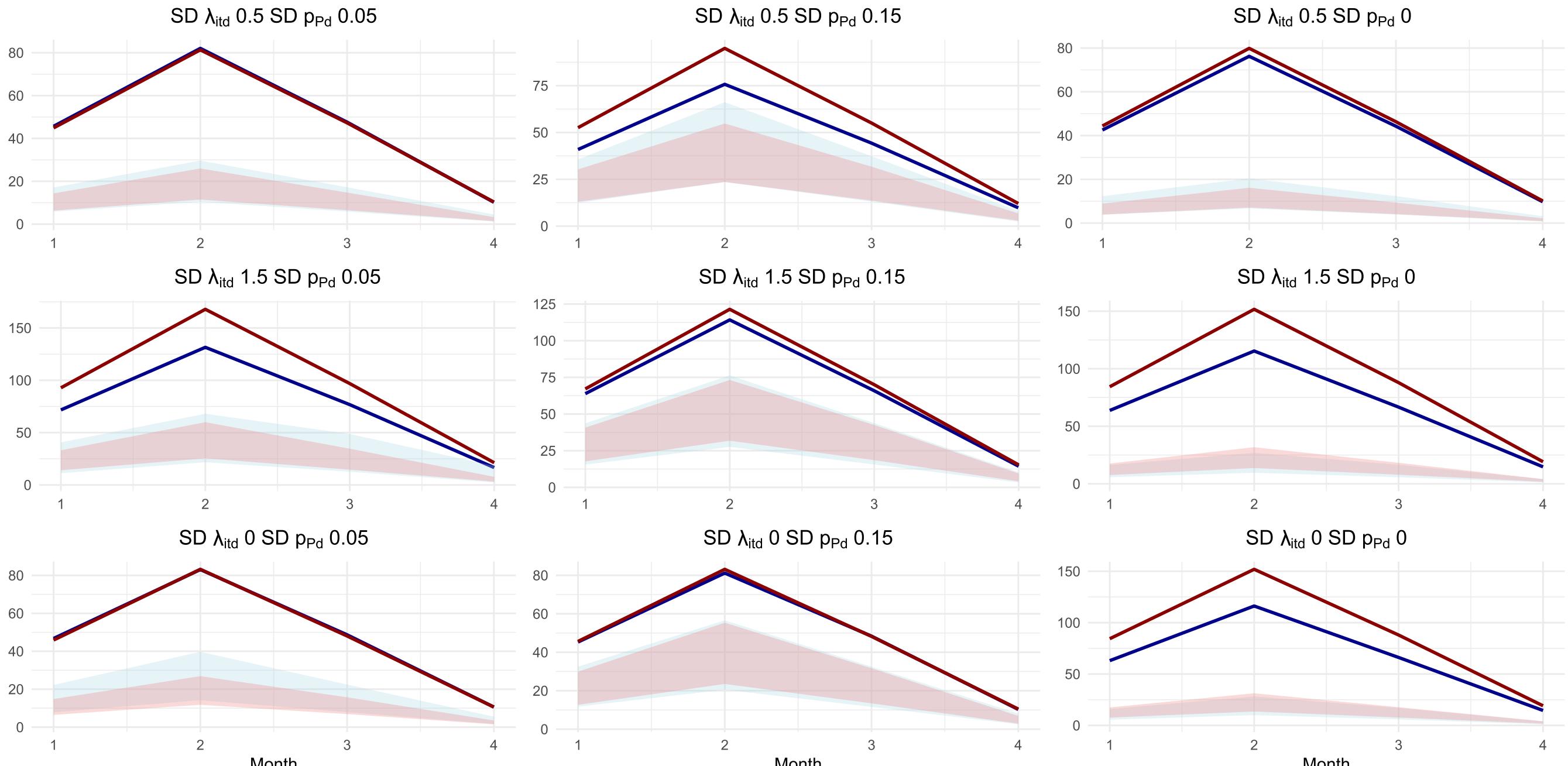
● 10 road transect

● 100 road transect

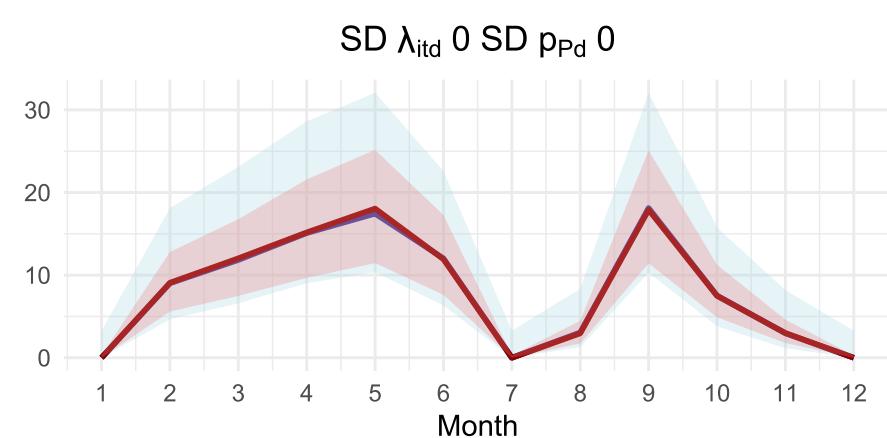
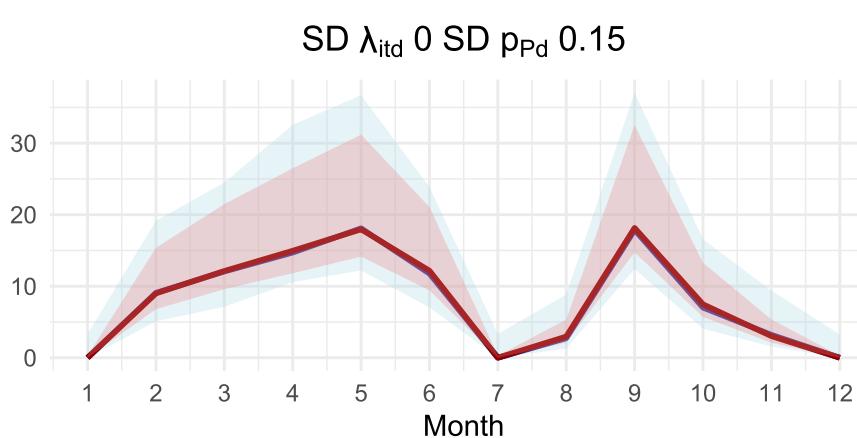
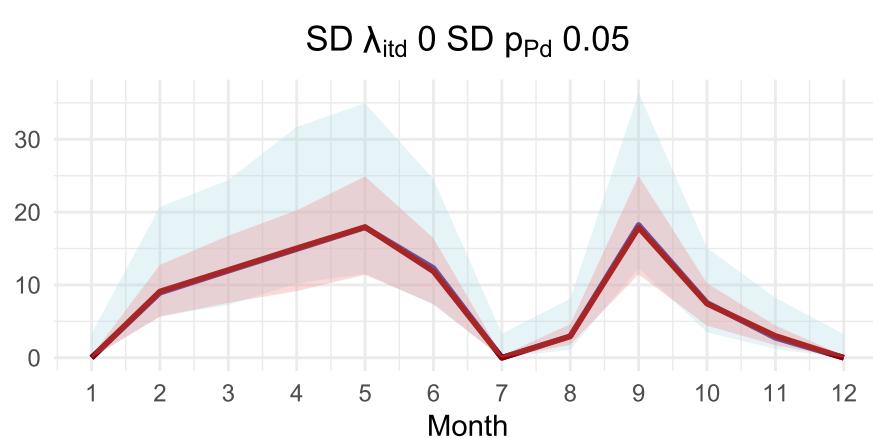
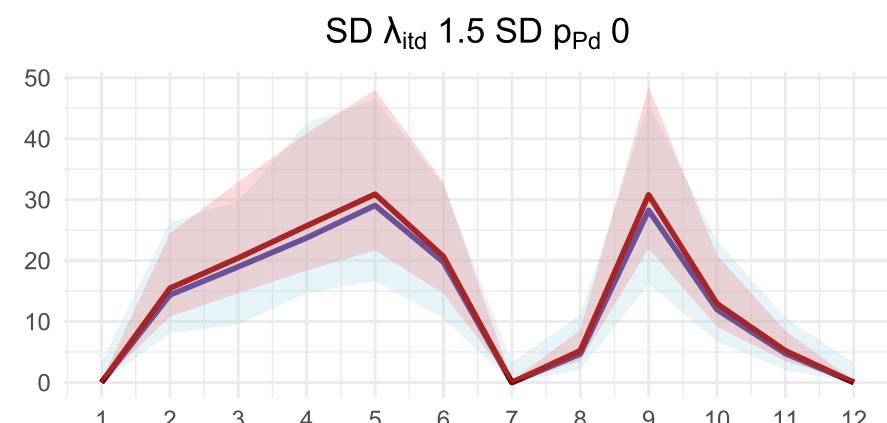
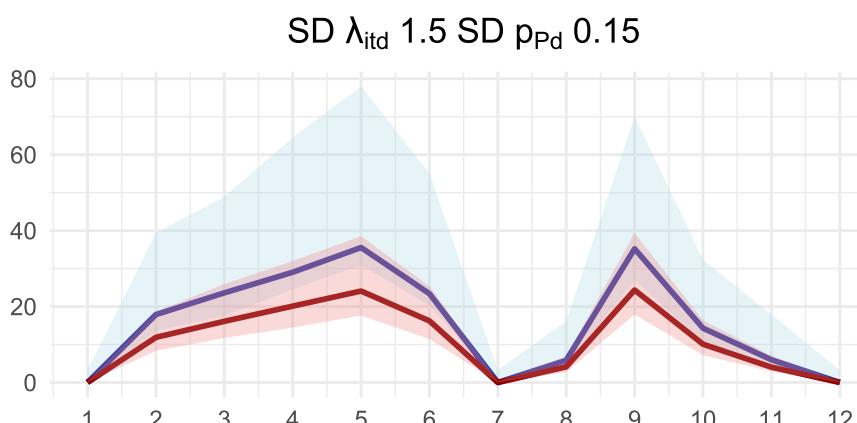
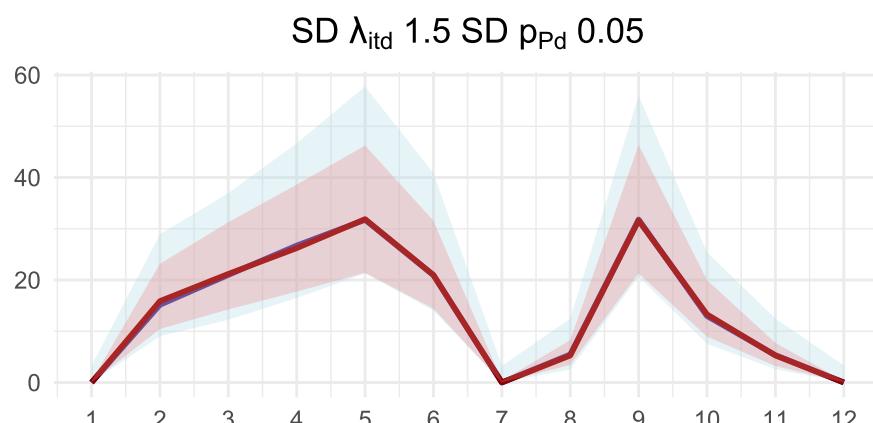
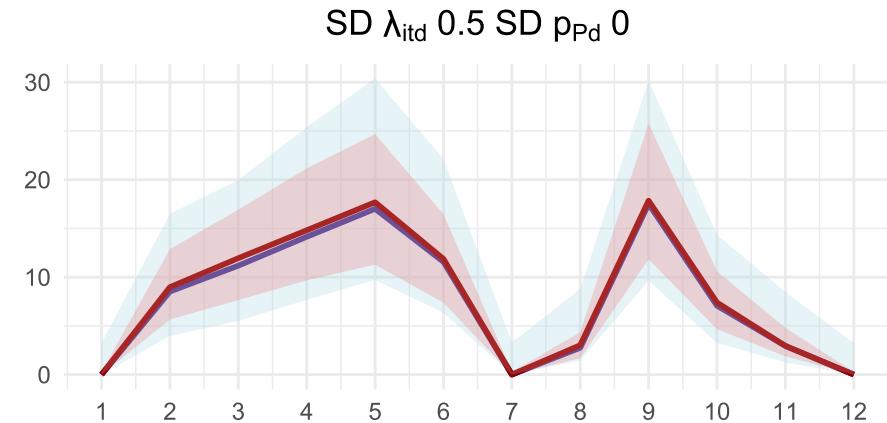
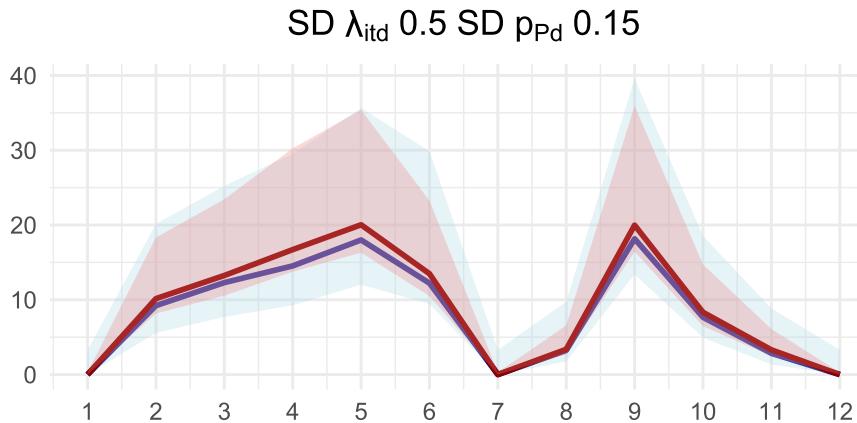
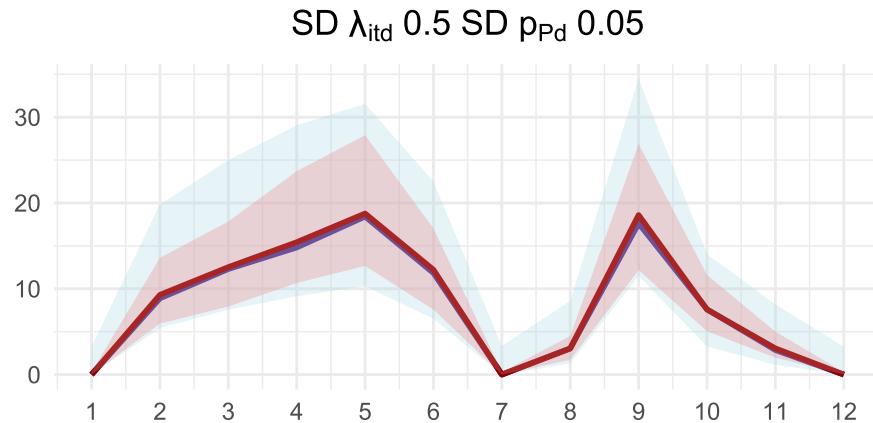
Reptiles G1 abundance peak SE $p_P = 0.05$



Reptiles G1 abundance peak SE $p_P = 0.10$



Reptiles G2 SE p_L & $p_P = 0.05$

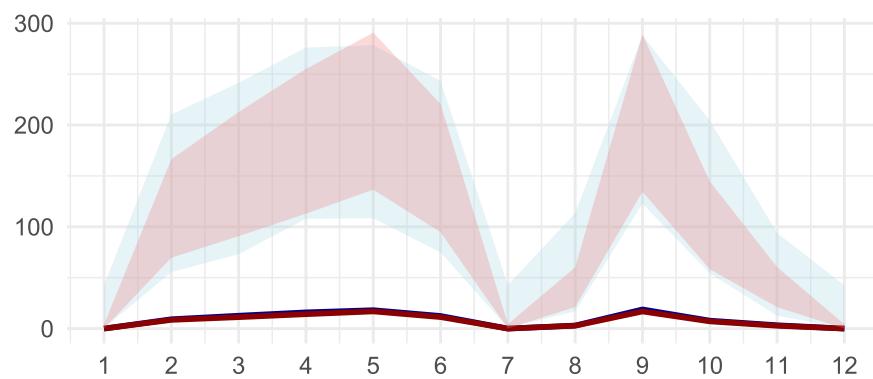


● 10 road transect

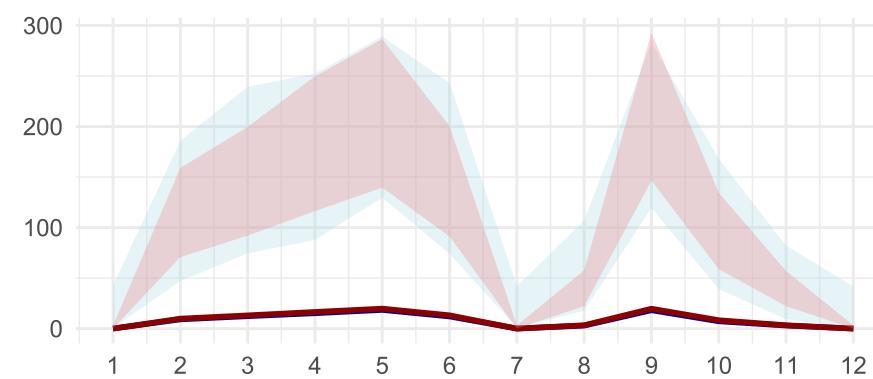
● 100 road transect

Reptiles G2 SE p_L & $p_P = 0.10$

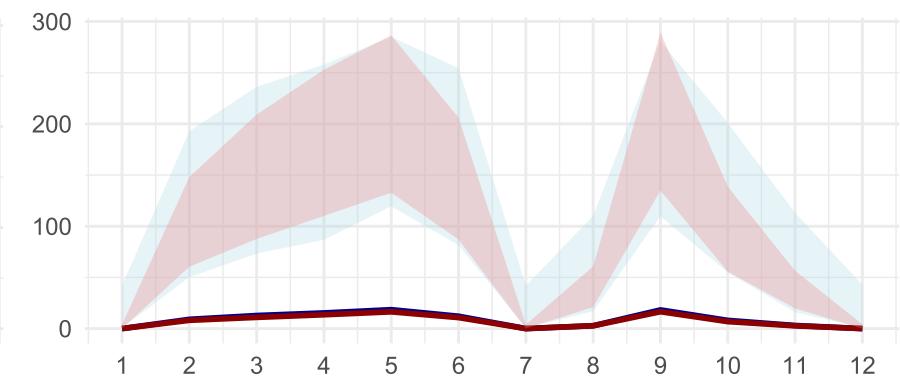
SD λ_{itd} 0.5 SD p_{Pd} 0.05



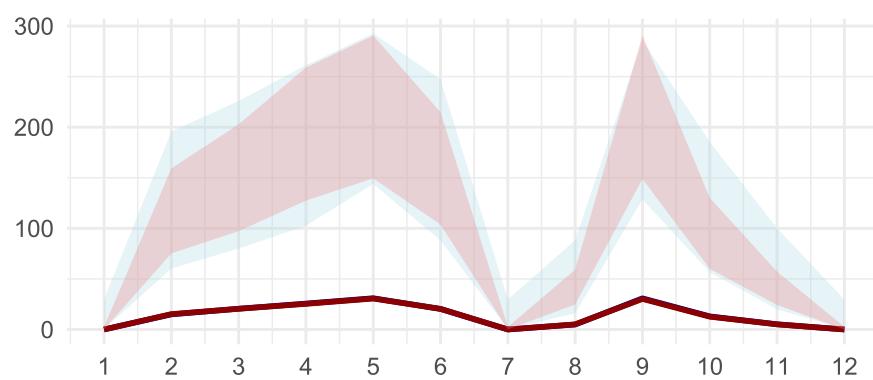
SD λ_{itd} 0.5 SD p_{Pd} 0.15



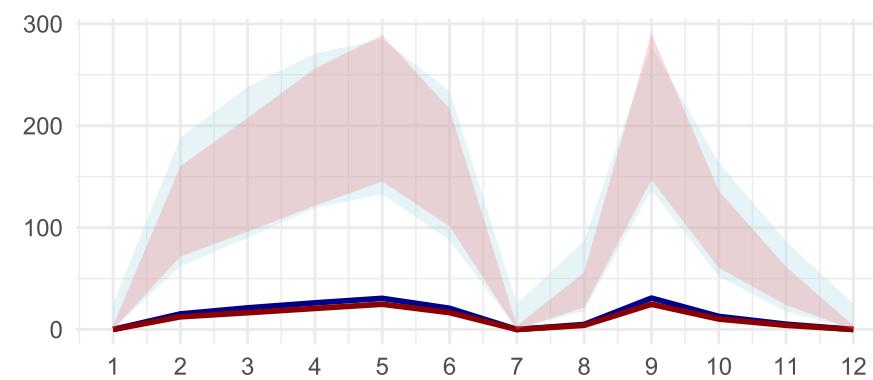
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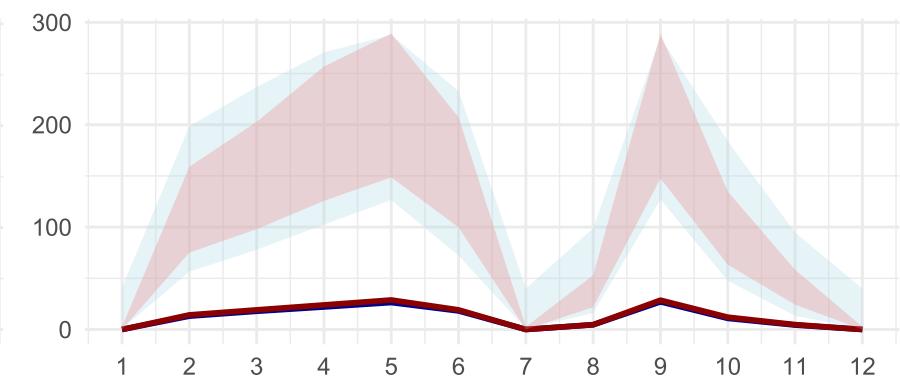
SD λ_{itd} 1.5 SD p_{Pd} 0.05



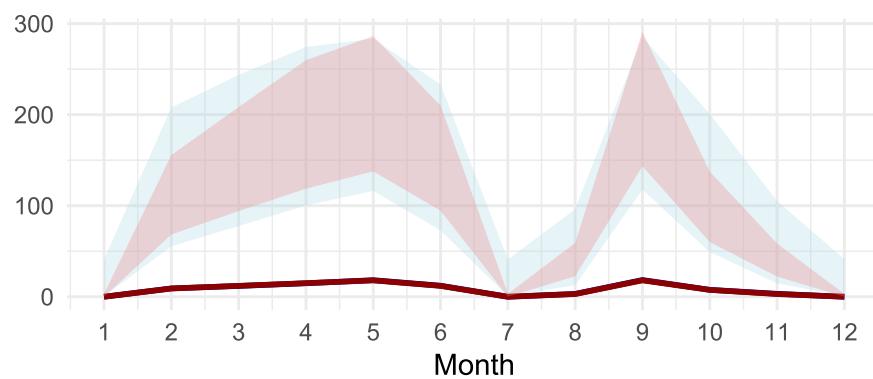
SD λ_{itd} 1.5 SD p_{Pd} 0.15



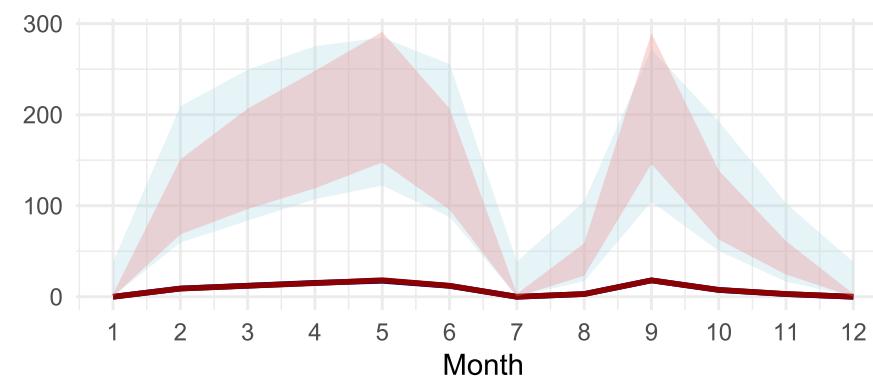
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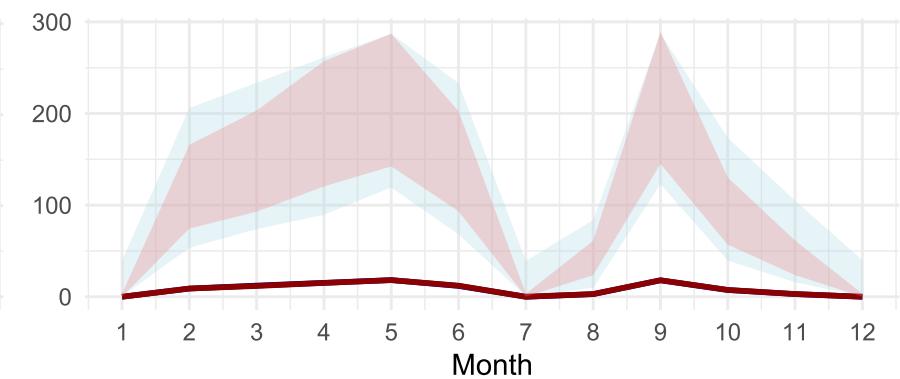
SD λ_{itd} 0 SD p_{Pd} 0.05



SD λ_{itd} 0 SD p_{Pd} 0.15



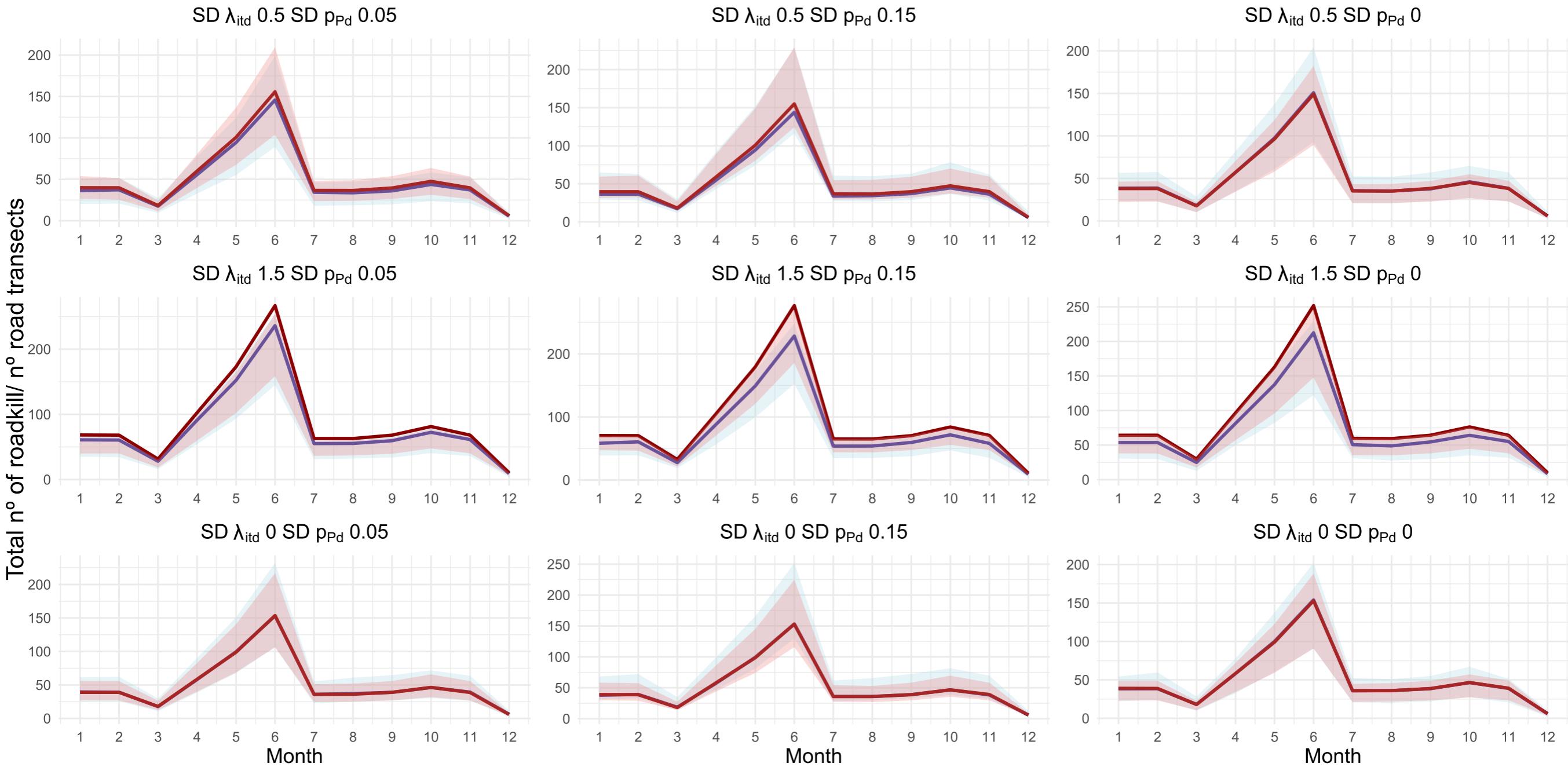
SD λ_{itd} 0 SD p_{Pd} 0



● 10 road transect

● 100 road transect

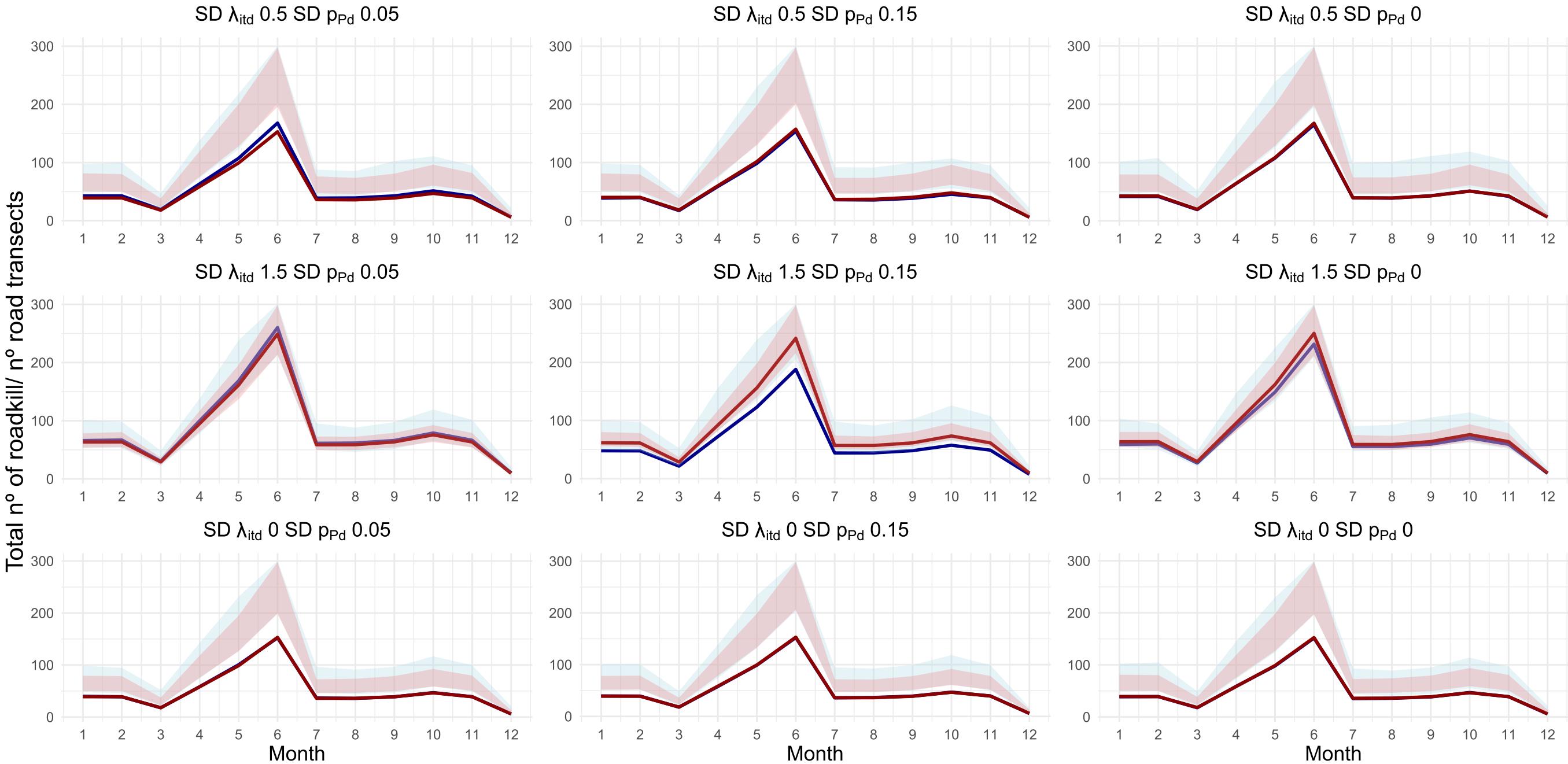
Birds/Bats G1 SE p_L & $p_P = 0.05$



● 10 road transect

● 100 road transect

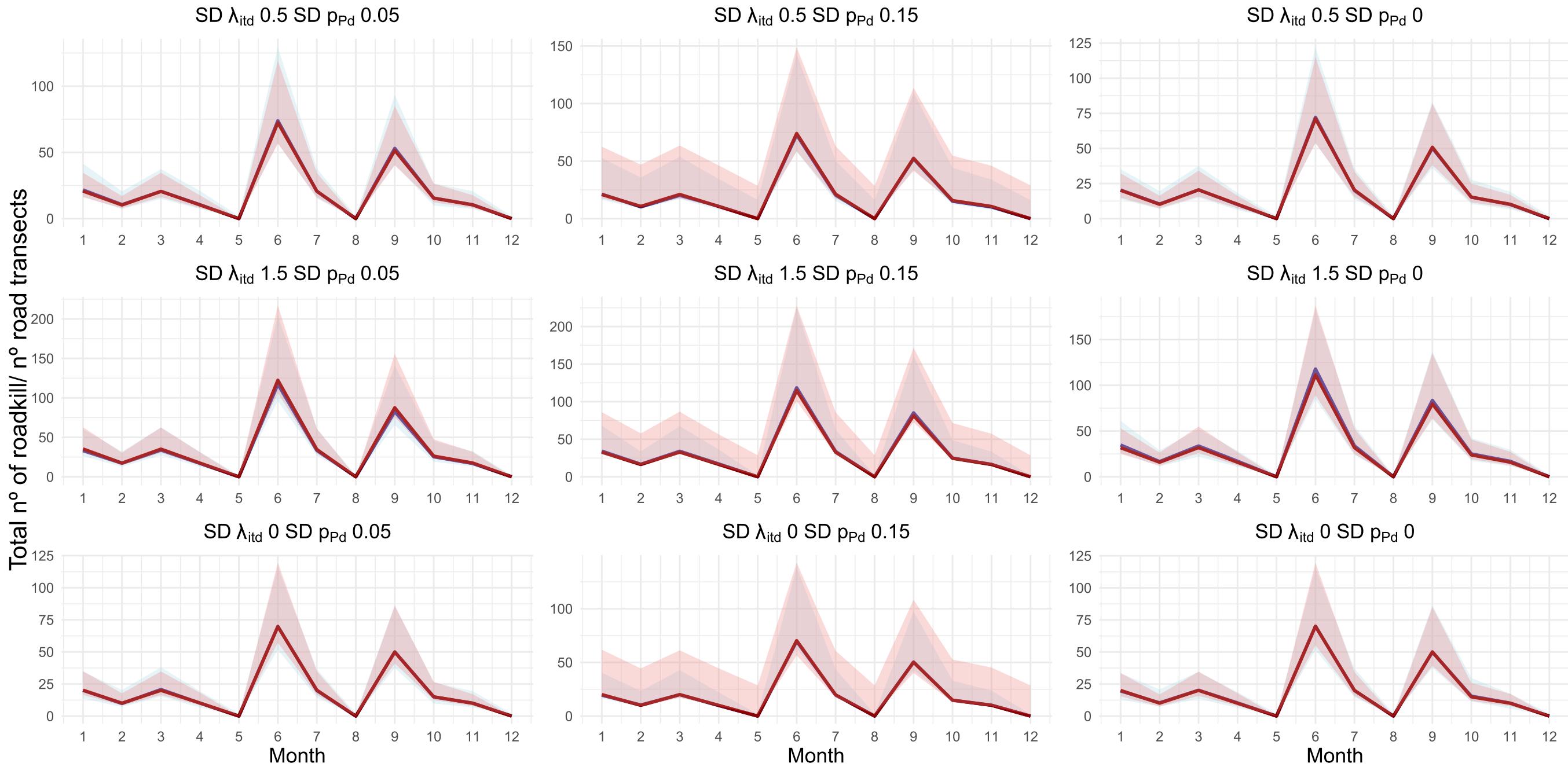
Birds/Bats G1 SE p_L & $p_P = 0.10$



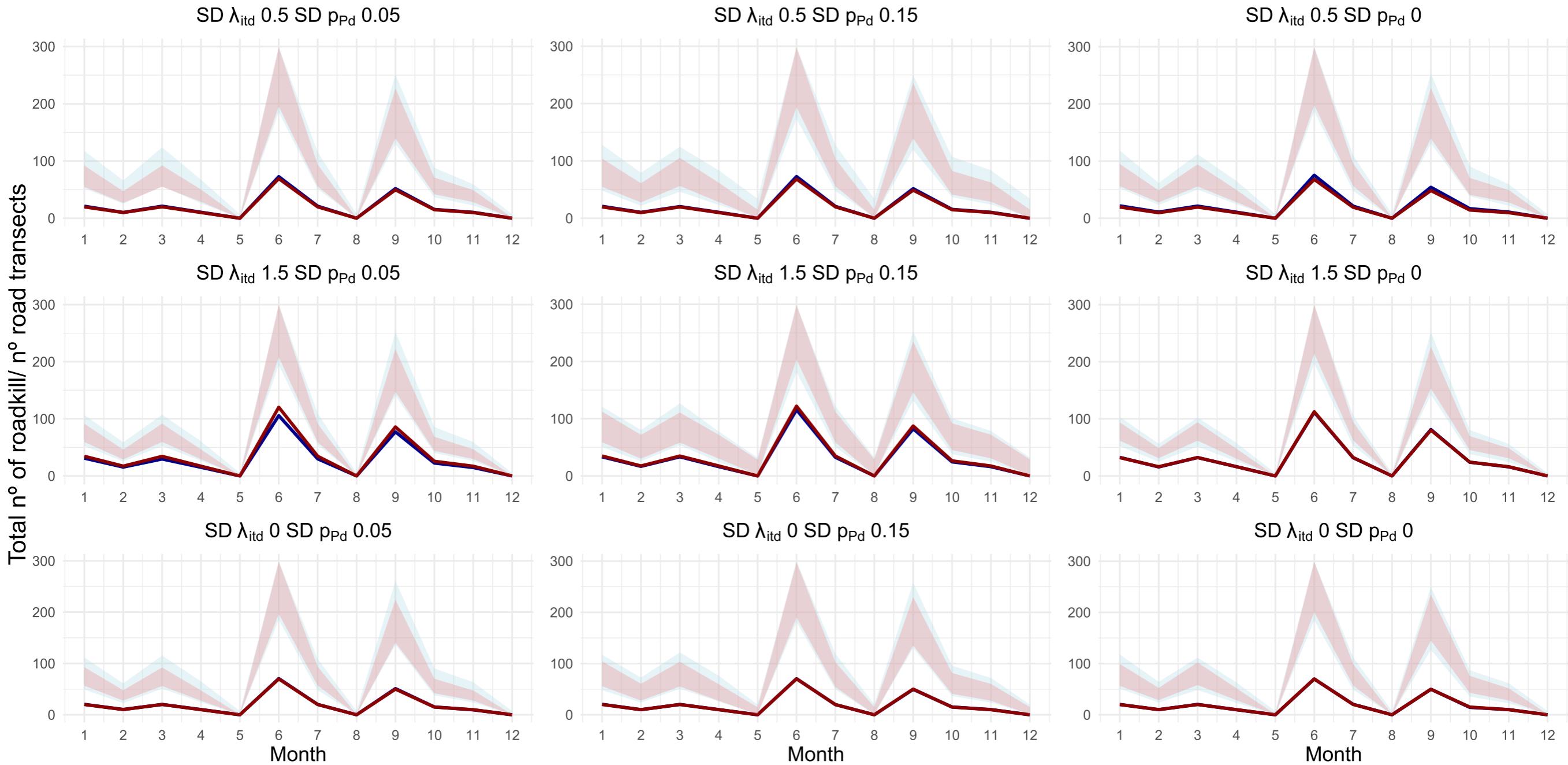
● 10 road transect

● 100 road transect

Birds G2 SE p_L & $p_P = 0.05$



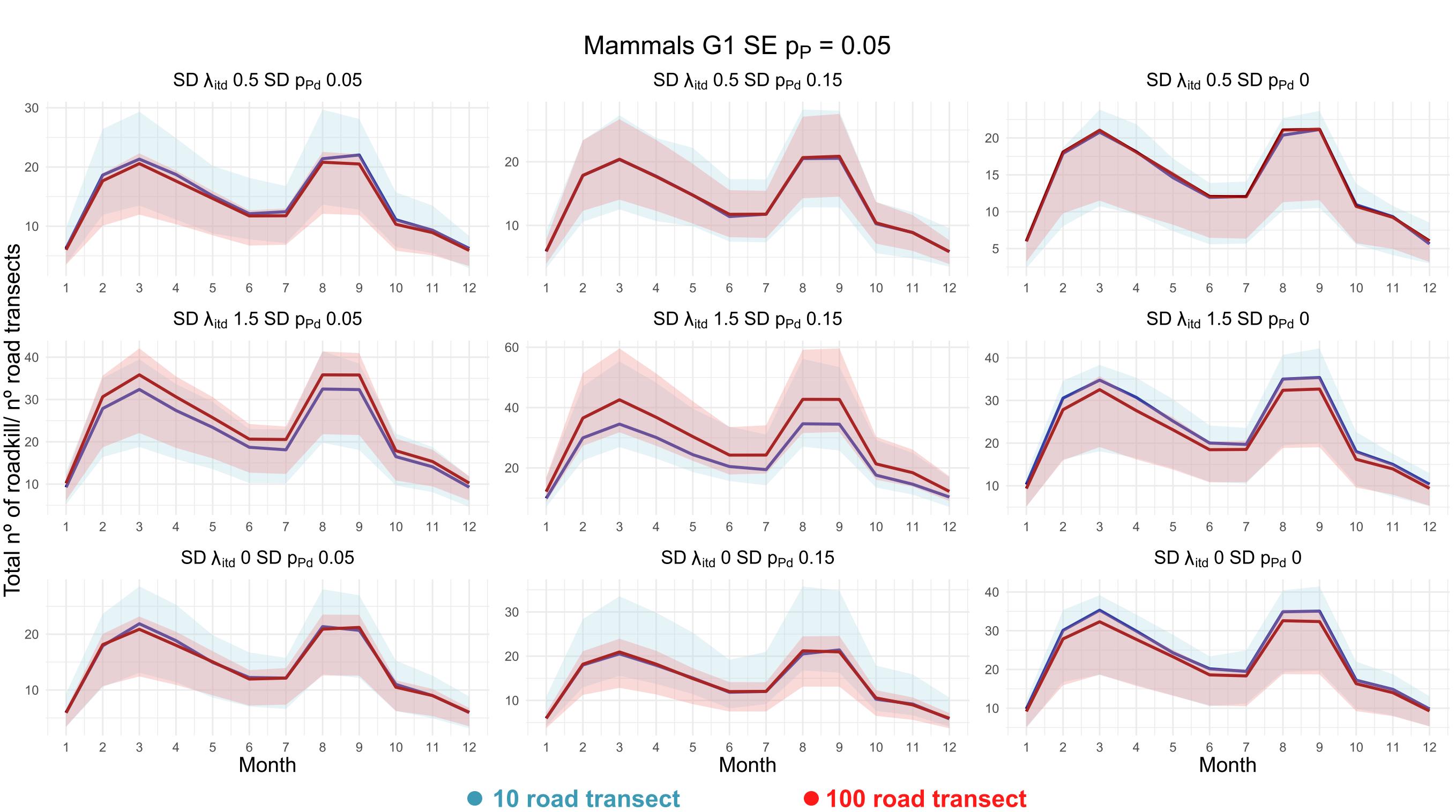
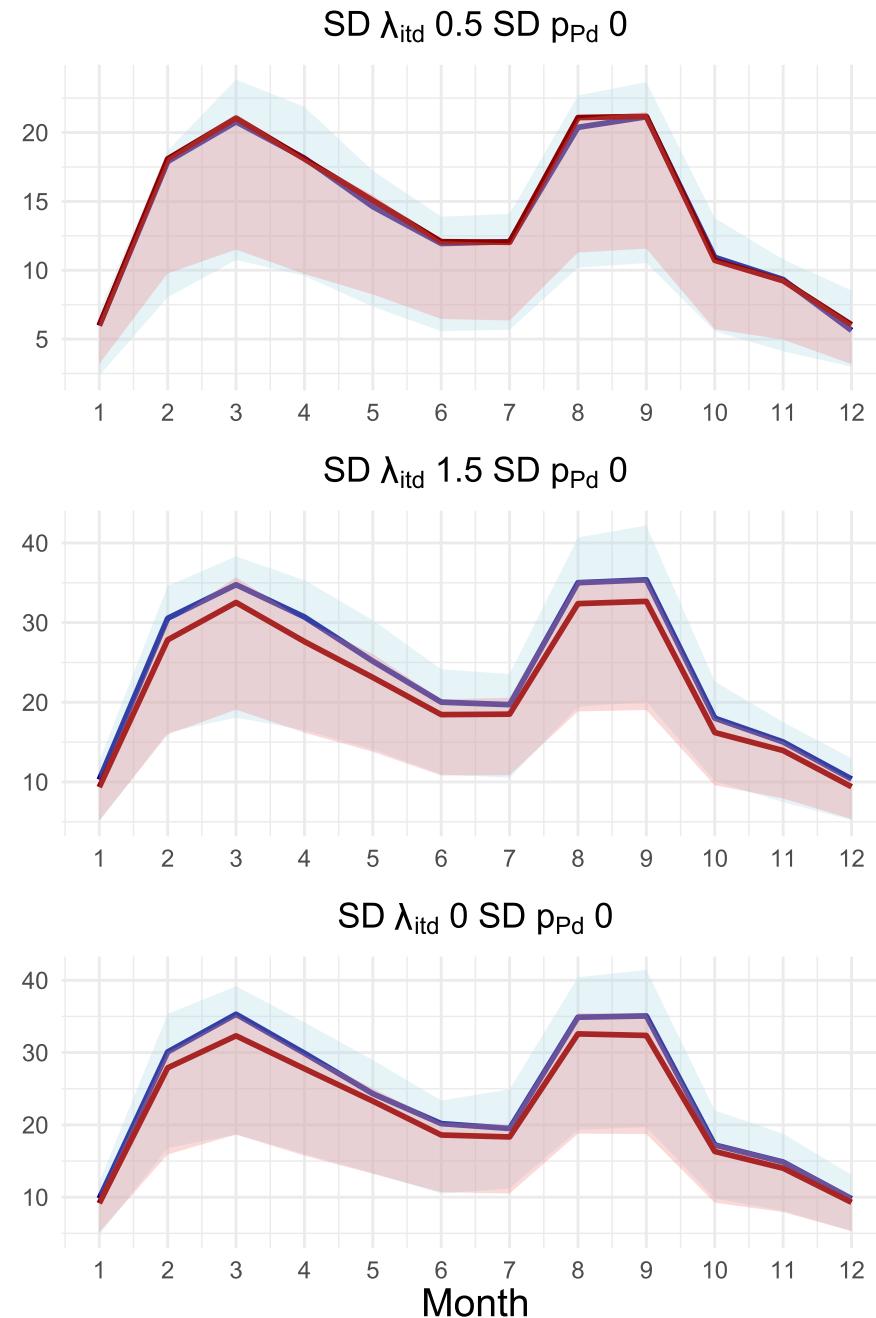
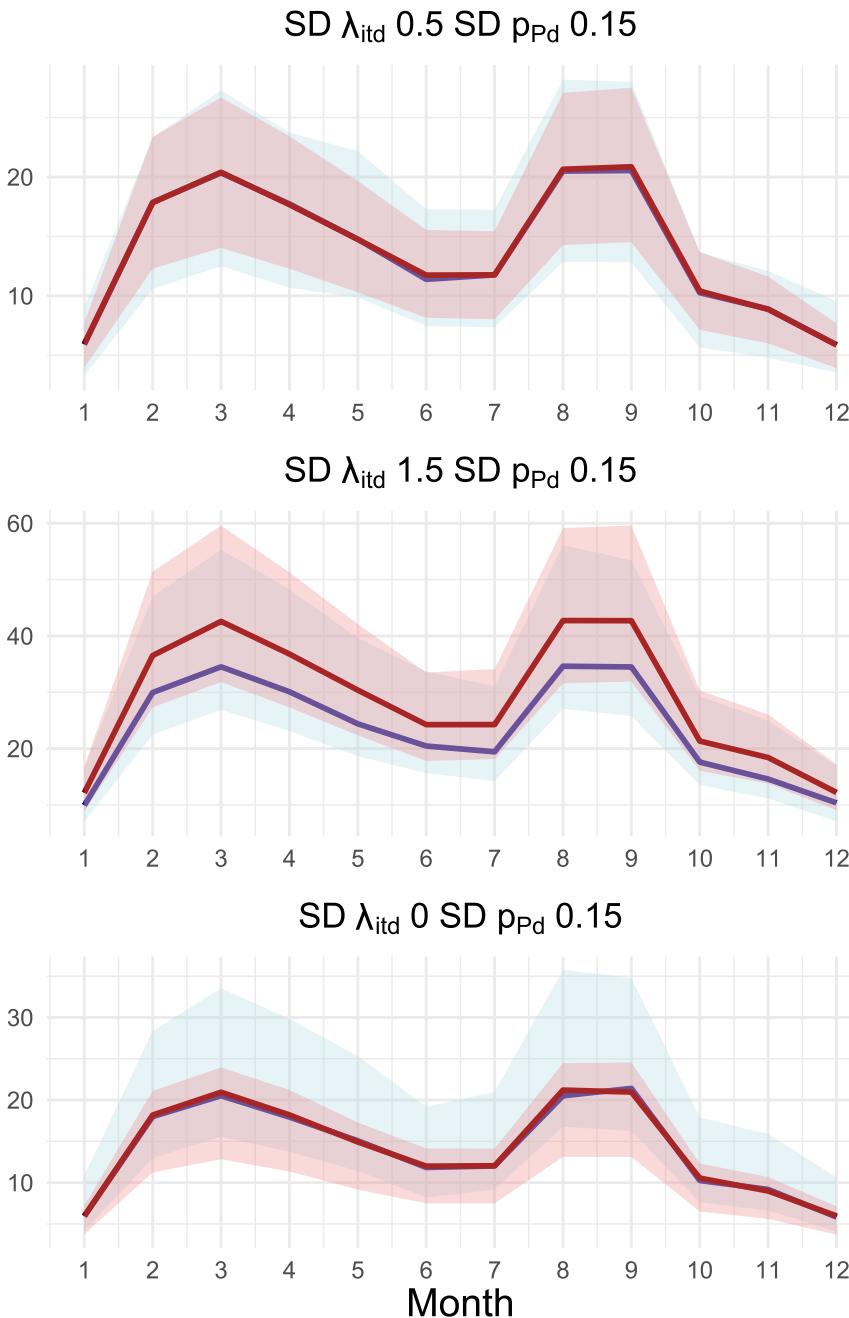
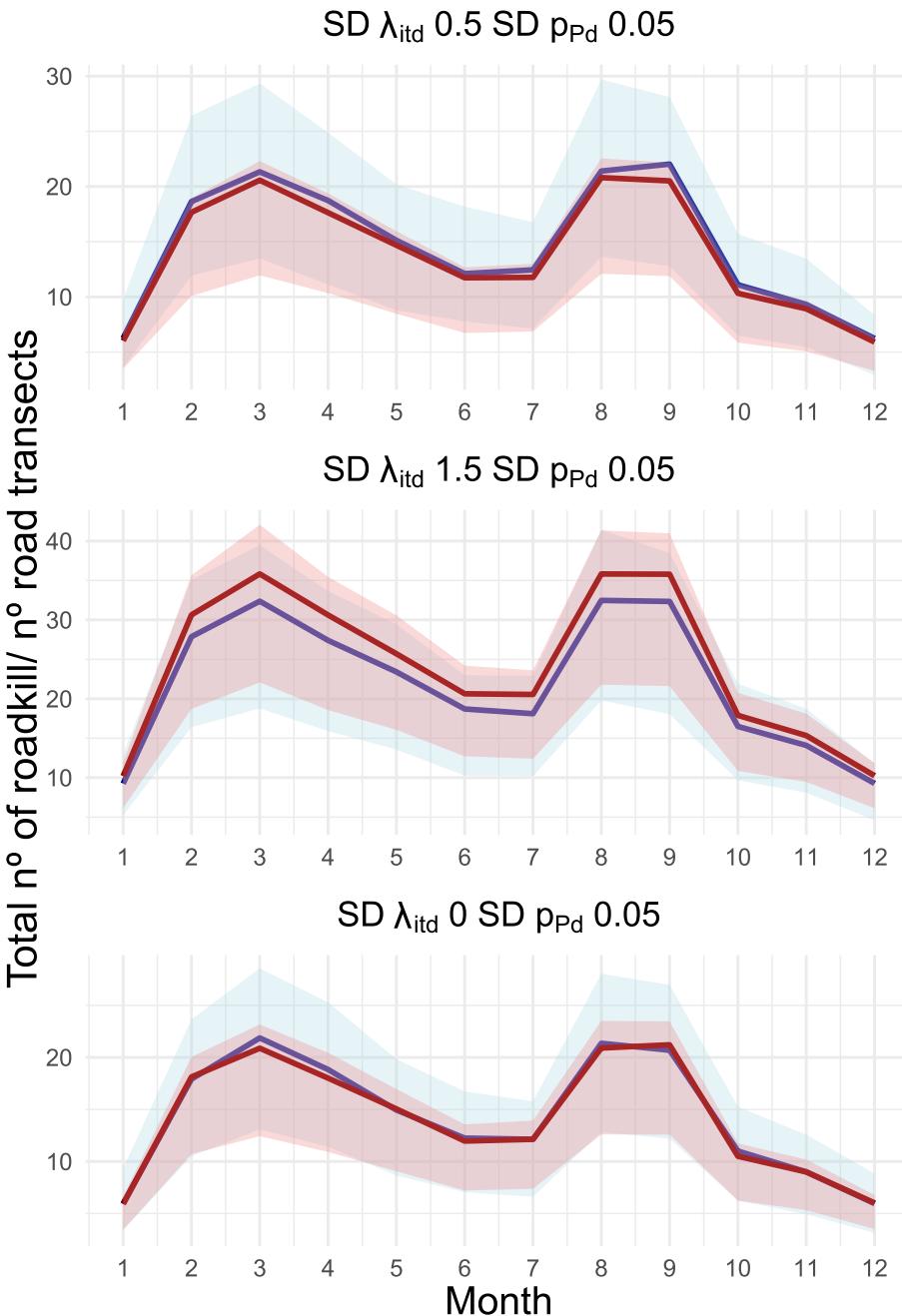
Birds G2 SE p_L & $p_P = 0.10$



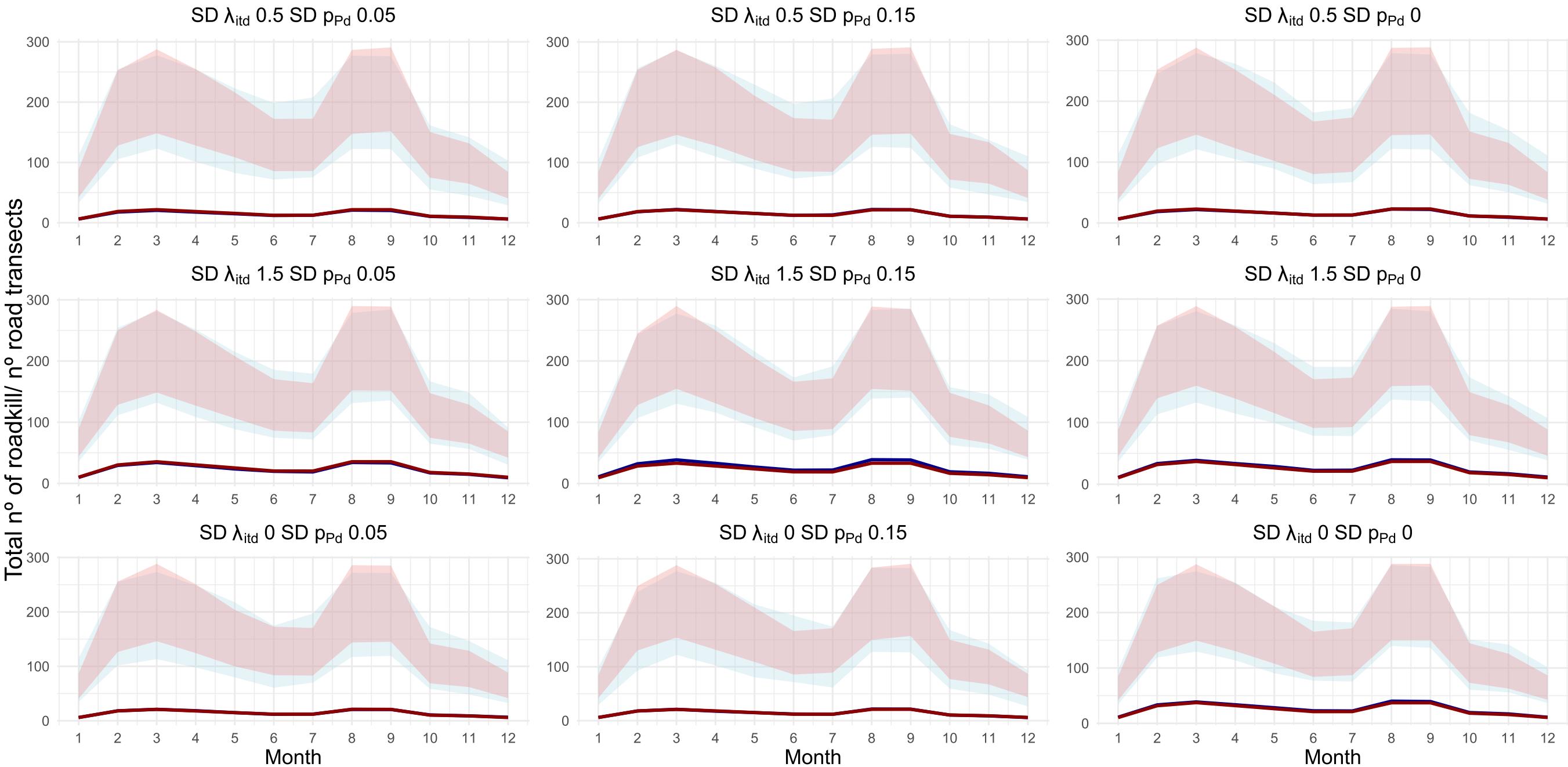
● 10 road transect

● 100 road transect

Mammals G1 SE $p_P = 0.05$



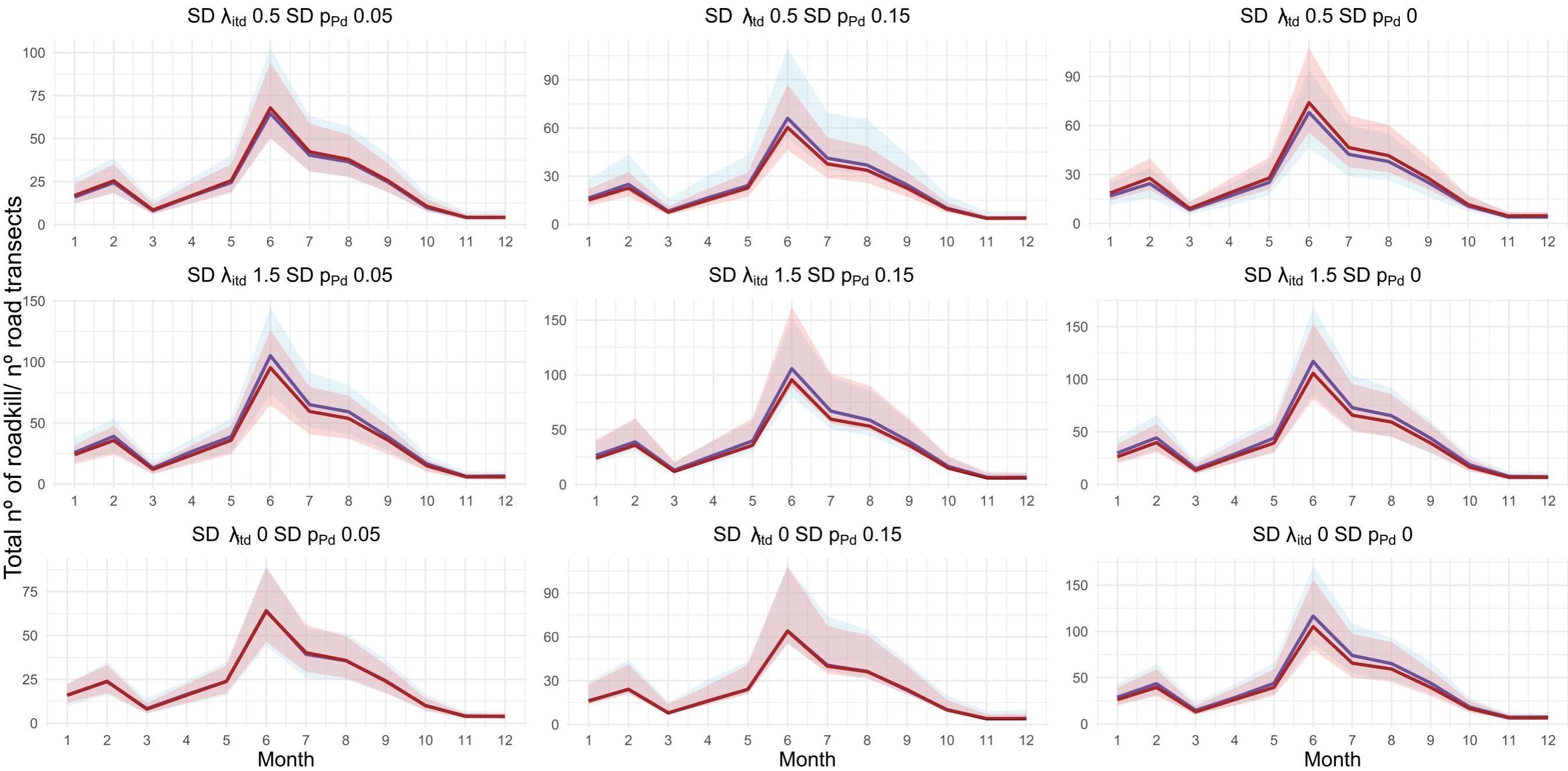
Mammals G1 SE $p_P = 0.10$



● 10 road transect

● 100 road transect

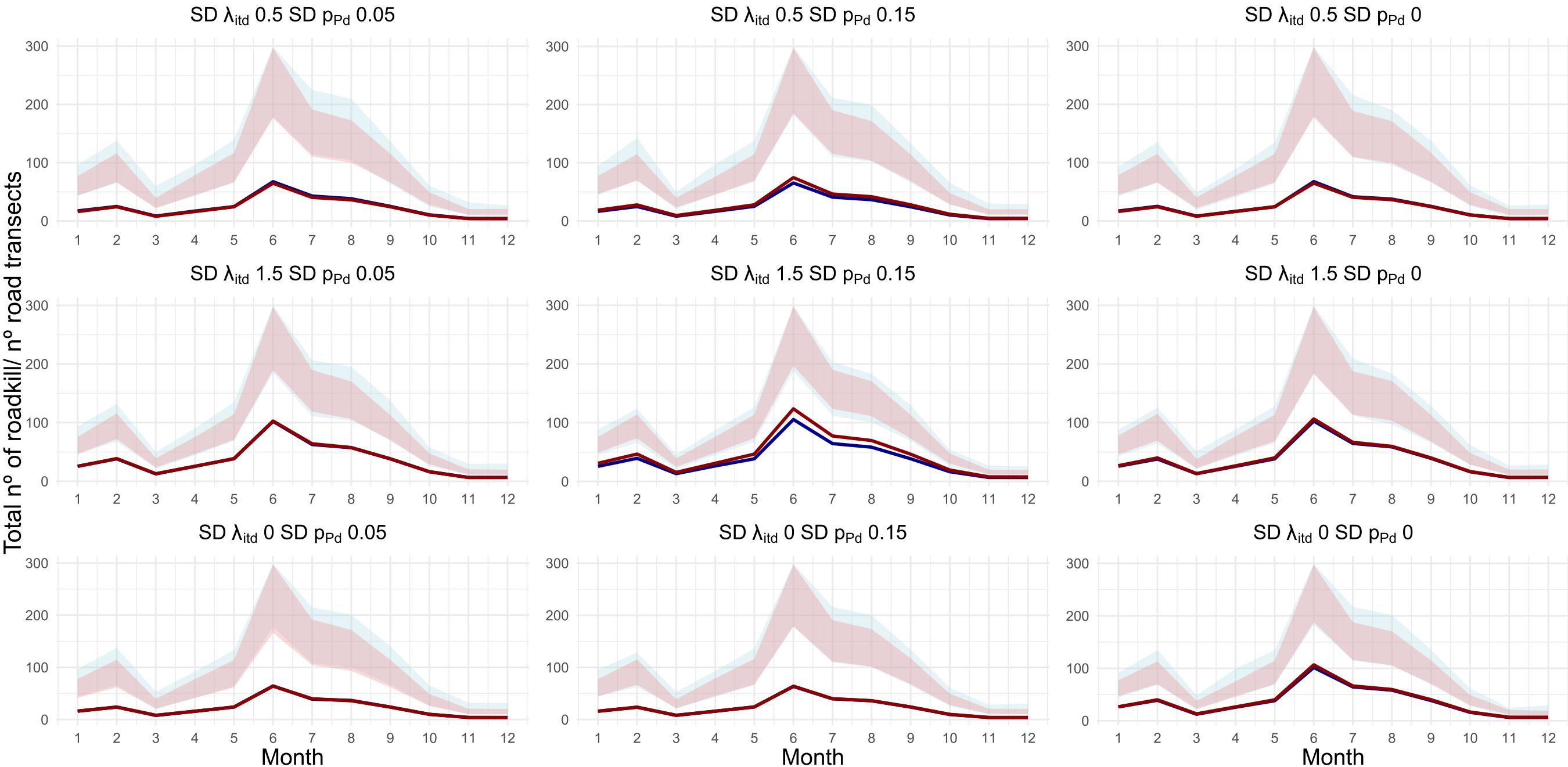
Mammals G2 SE $p_P = 0.05$



● 10 road transect

● 100 road transect

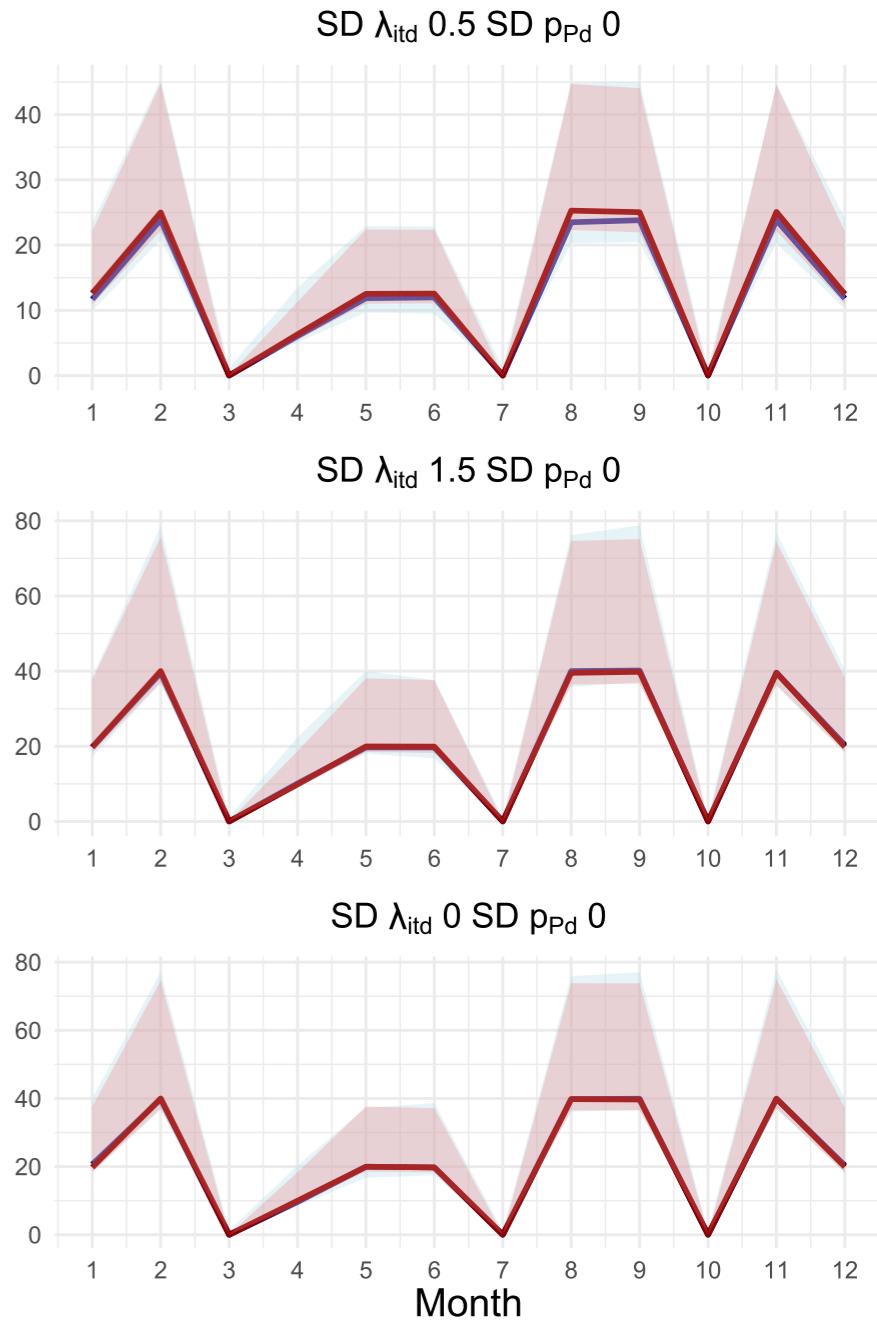
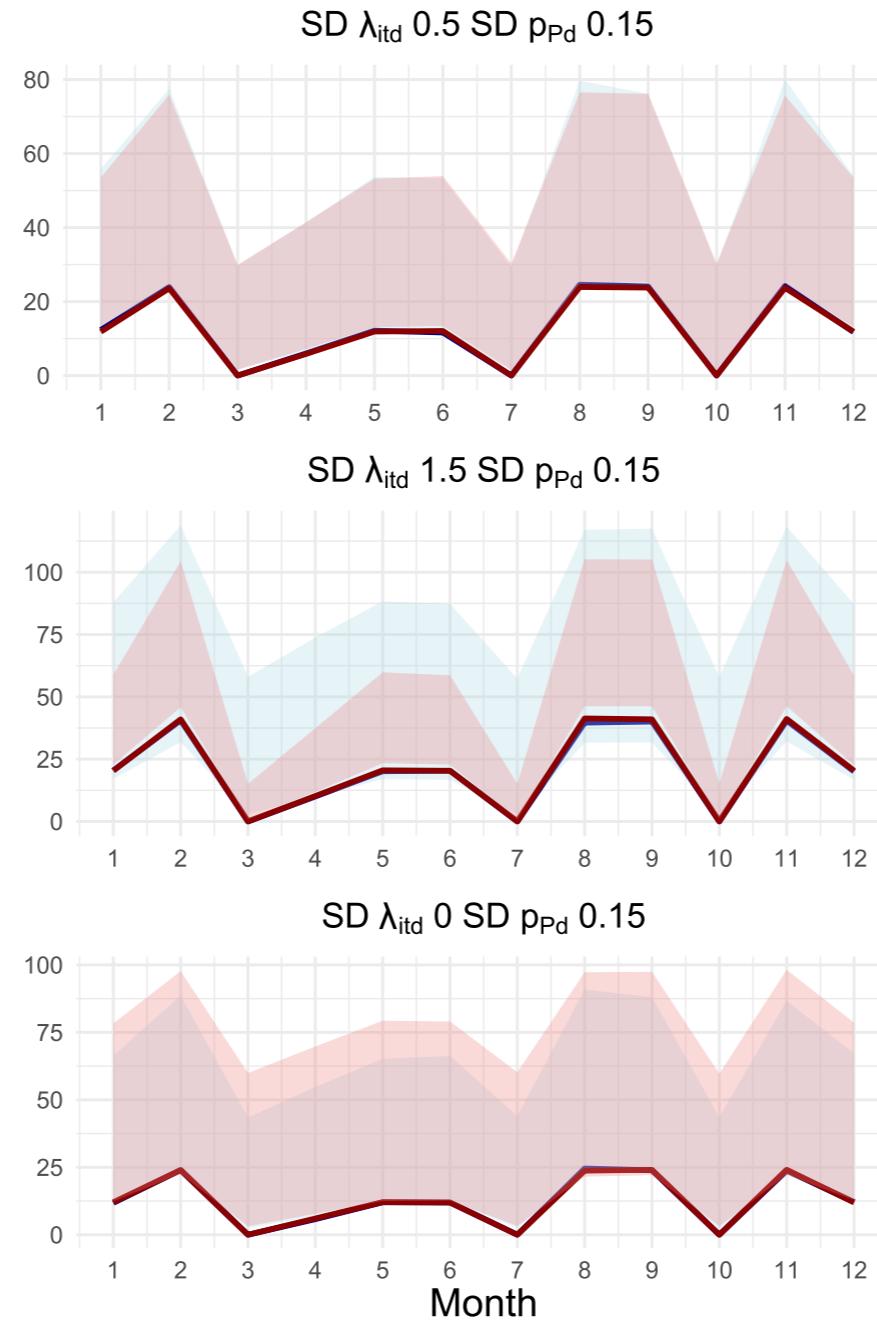
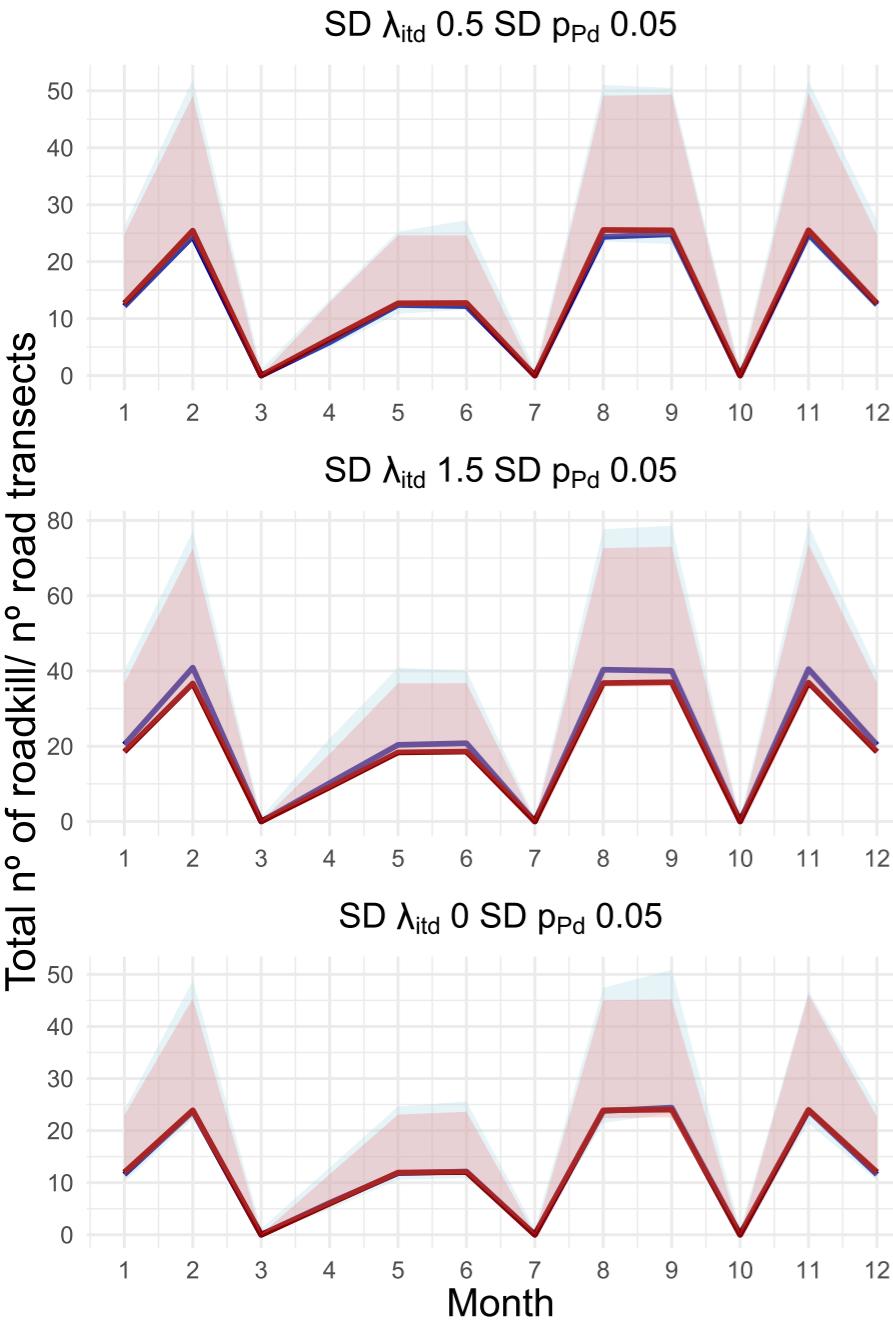
Mammals G2 SE $p_P = 0.10$



● 10 road transect

● 100 road transect

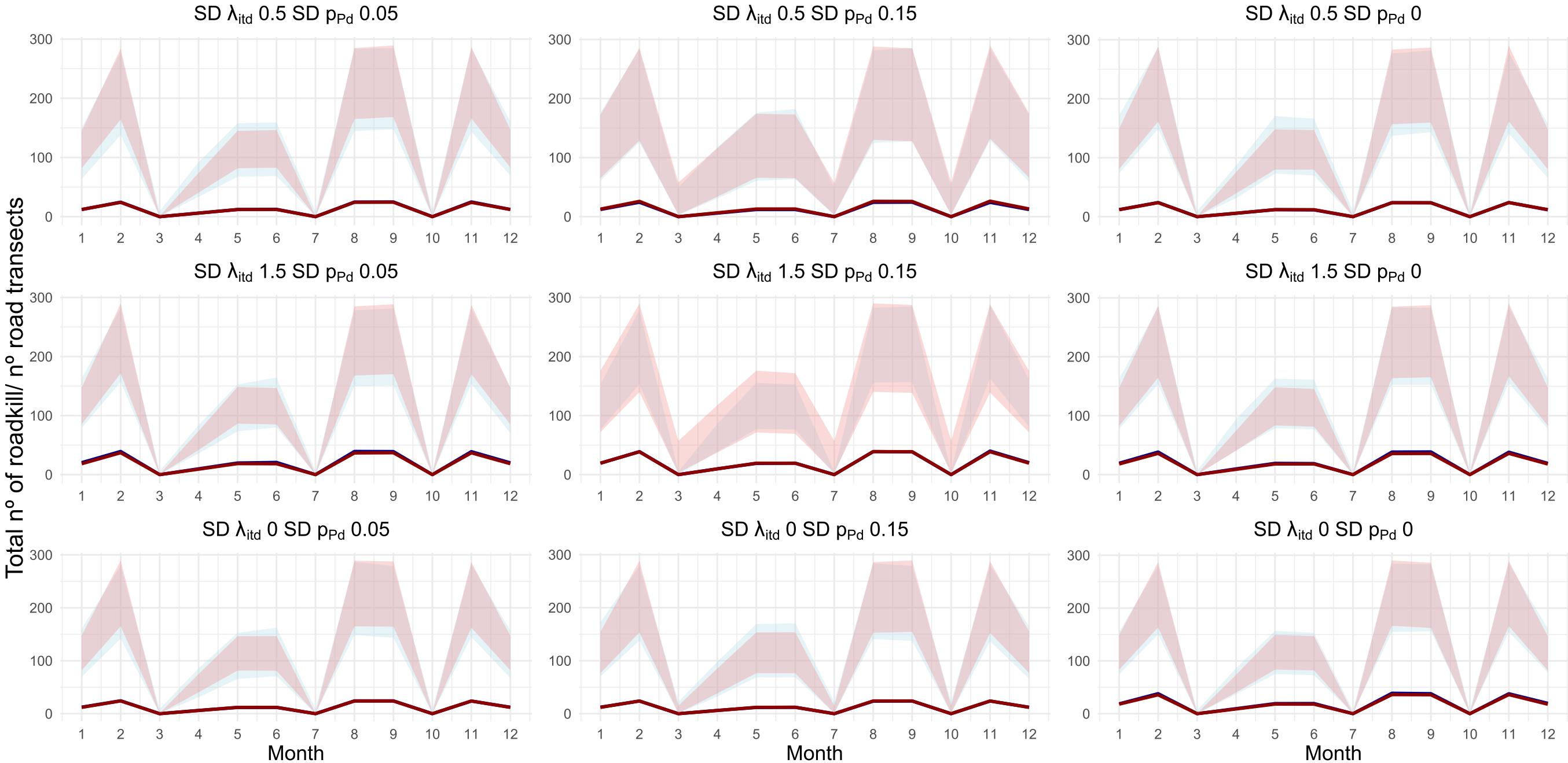
Mammals G3 SE $p_P = 0.05$



● 10 road transect

● 100 road transect

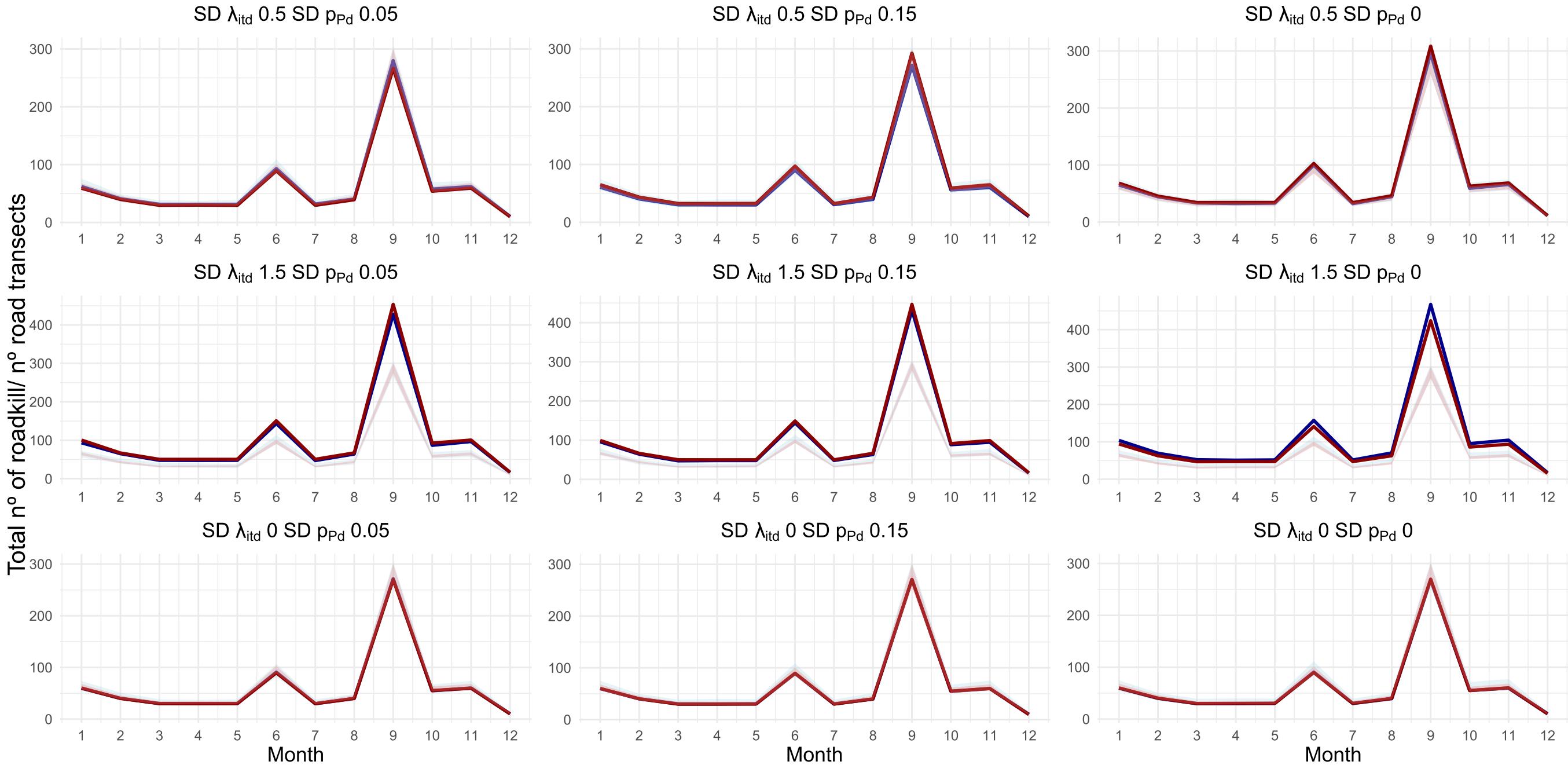
Mammals G3 SE $p_P = 0.10$



● 10 road transect

● 100 road transect

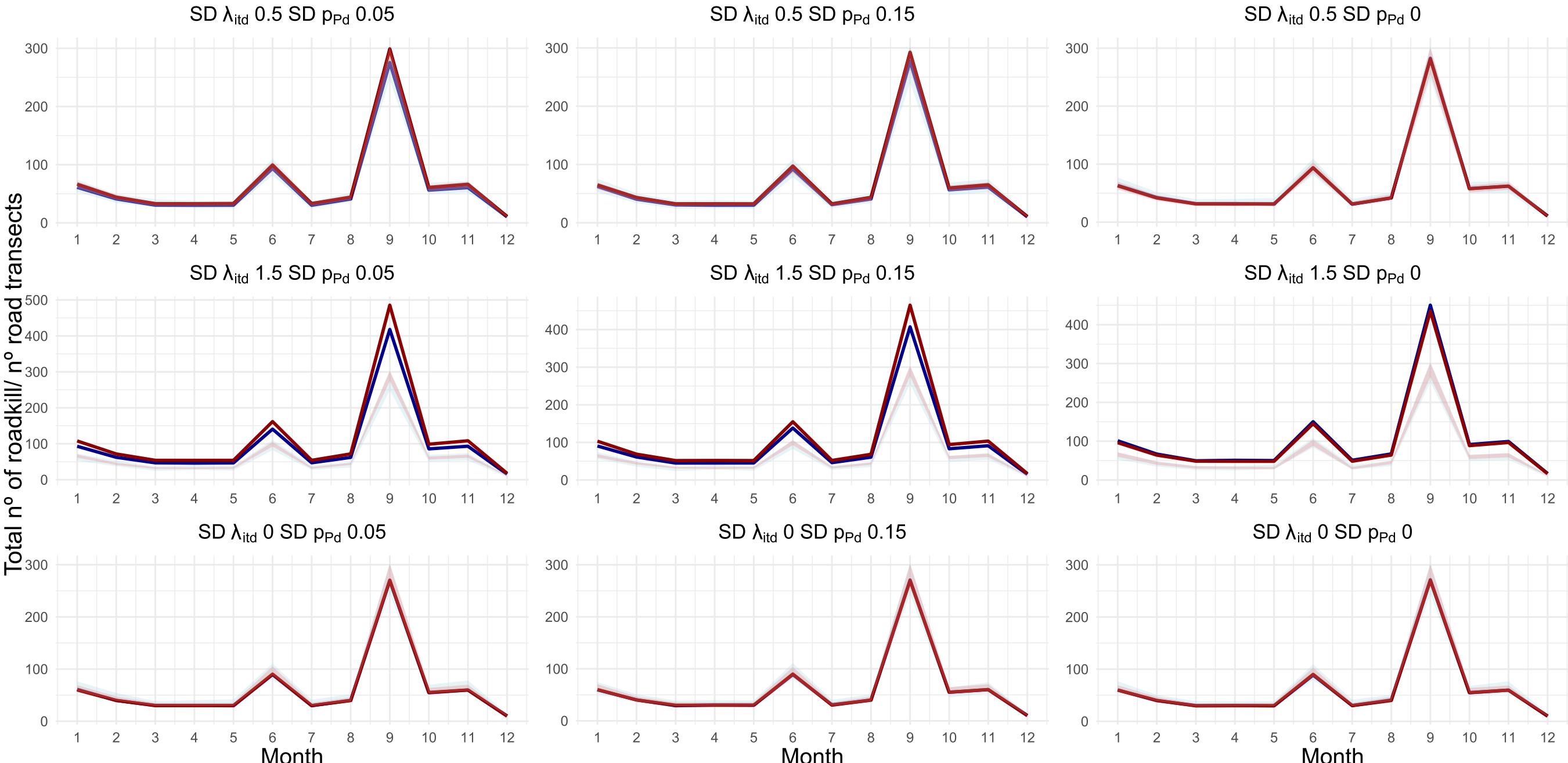
Mammals G4 SE p_L & $p_P = 0.05$



● 10 road transect

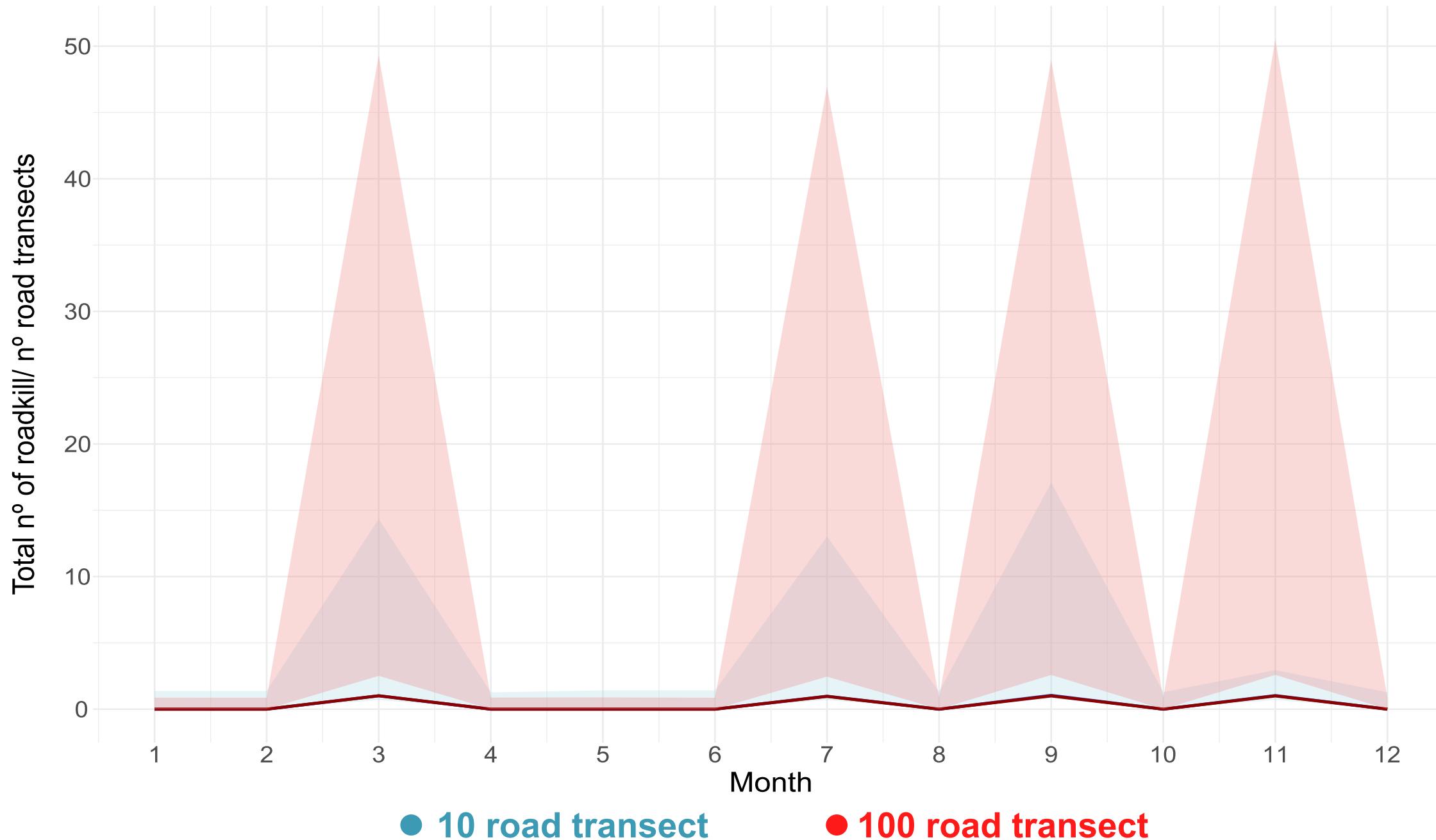
● 100 road transect

Mammals G4 SE p_L & $p_P = 0.10$



Mammals G5 SE $p_L = 0.05$

SD $\lambda_{itd} \neq 0$ SD $p_{Pd} \neq 0$



Mammals G5 SE $p_L = 0.10$

$SD \lambda_{itd} 0$ $SD p_{Pd} 0$

