

Figure S1. Kernel density maps based on occurrence records for the five *Cuscuta* species and the two host crop plants.

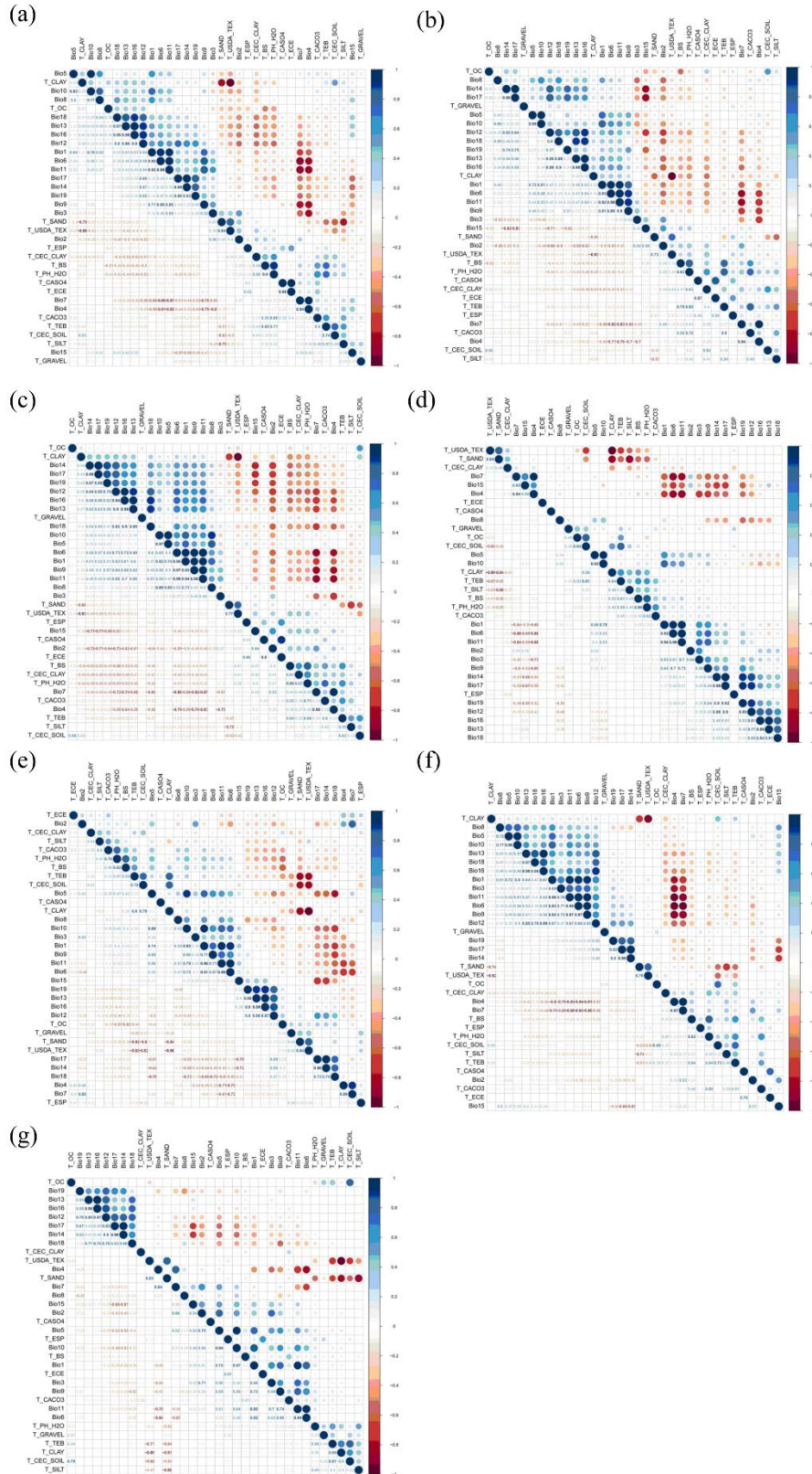


Figure S2. Pearson's correlation coefficients between the environmental variables used for environmental niche modelling of (a) *Cuscuta australis*, (b) *Cuscuta japonica*, (c) *Cuscuta chinensis*, (d) *Cuscuta europaea*, (e) *Cuscuta approximate*, (f) *Glycine max* and (g) *Medicago sativa*.

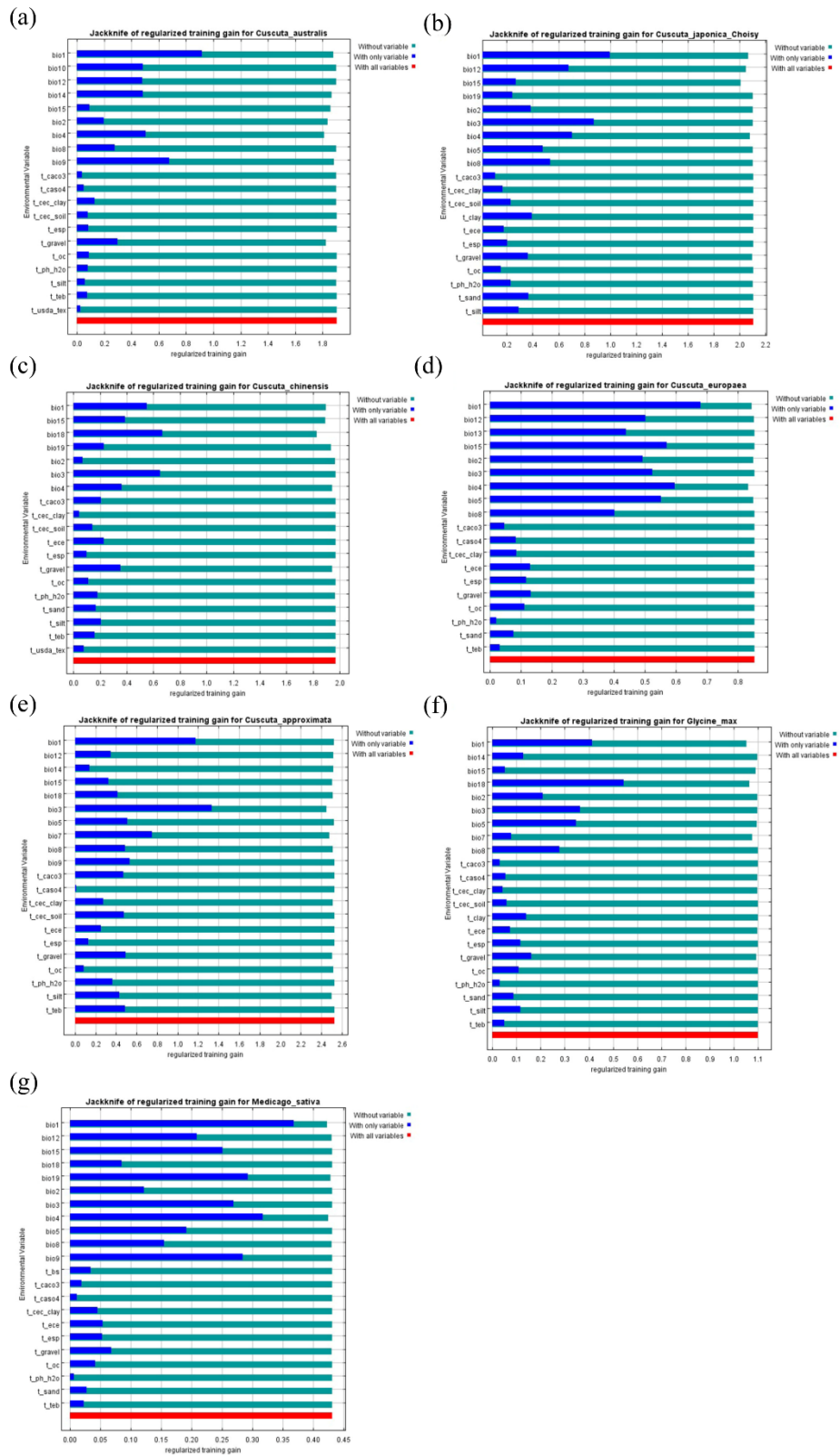


Figure S3. Results of jackknife evaluations of the relative importance of predictor variables and their percentage contribution in the MaxEnt model for each of the five *Cuscuta* species and the two host crop species. (a) *Cuscuta australis*, (b) *Cuscuta japonica*, (c) *Cuscuta chinensis*, (d) *Cuscuta europaea*, (e) *Cuscuta approximate*, (f) *Glycine max* and (g) *Medicago sativa*.

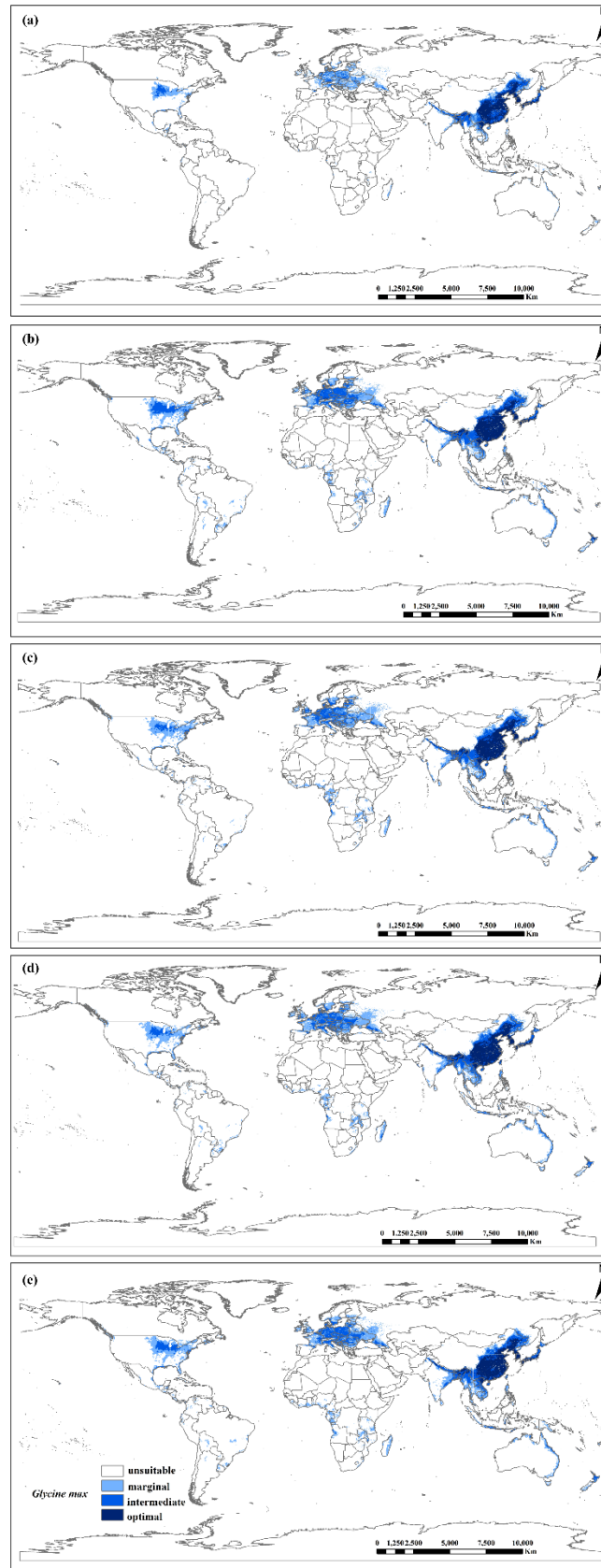


Figure S4. Projected potential distribution maps of *Glycine max* under the current climate and potential future climates in 2070. (a) current period; (b-e) RCP 2.6~8.5 in 2070.

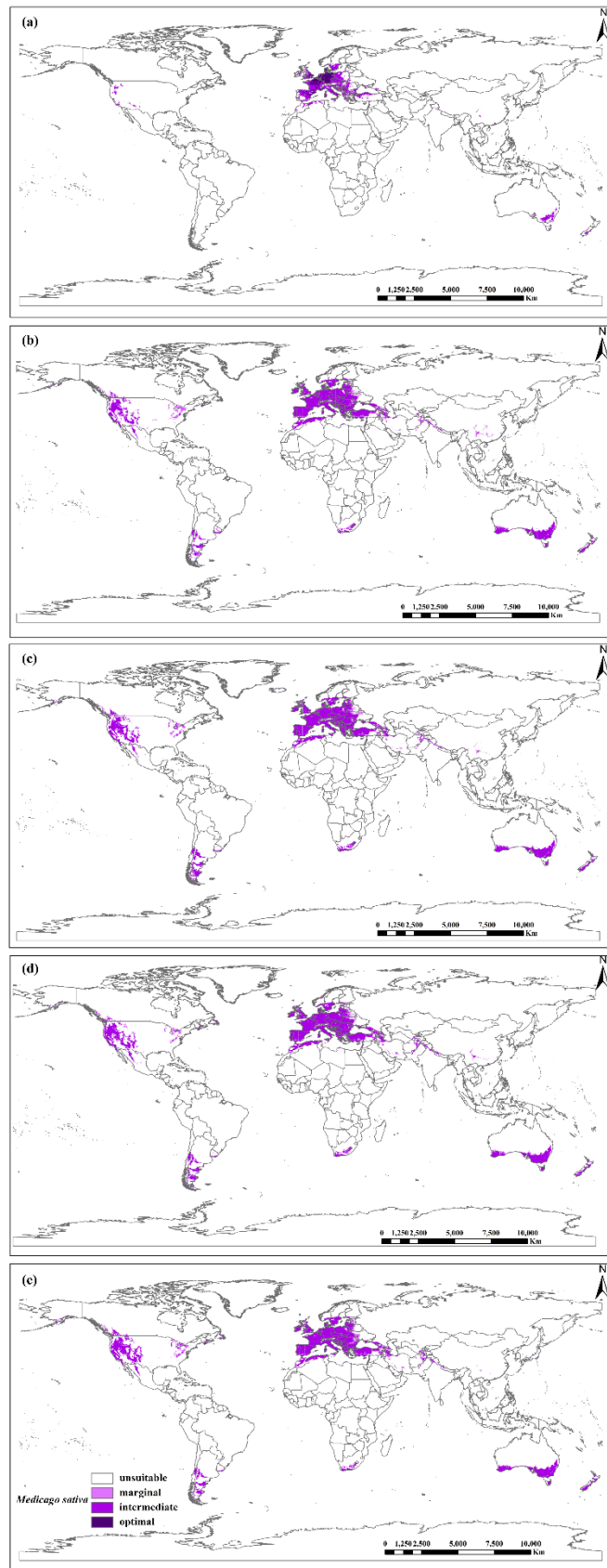


Figure S5. Projected potential distribution maps of *Medicago sativa* under the current climate and potential future climates in 2070. (a) current period; (b-e) RCP 2.6~8.5 in 2070.

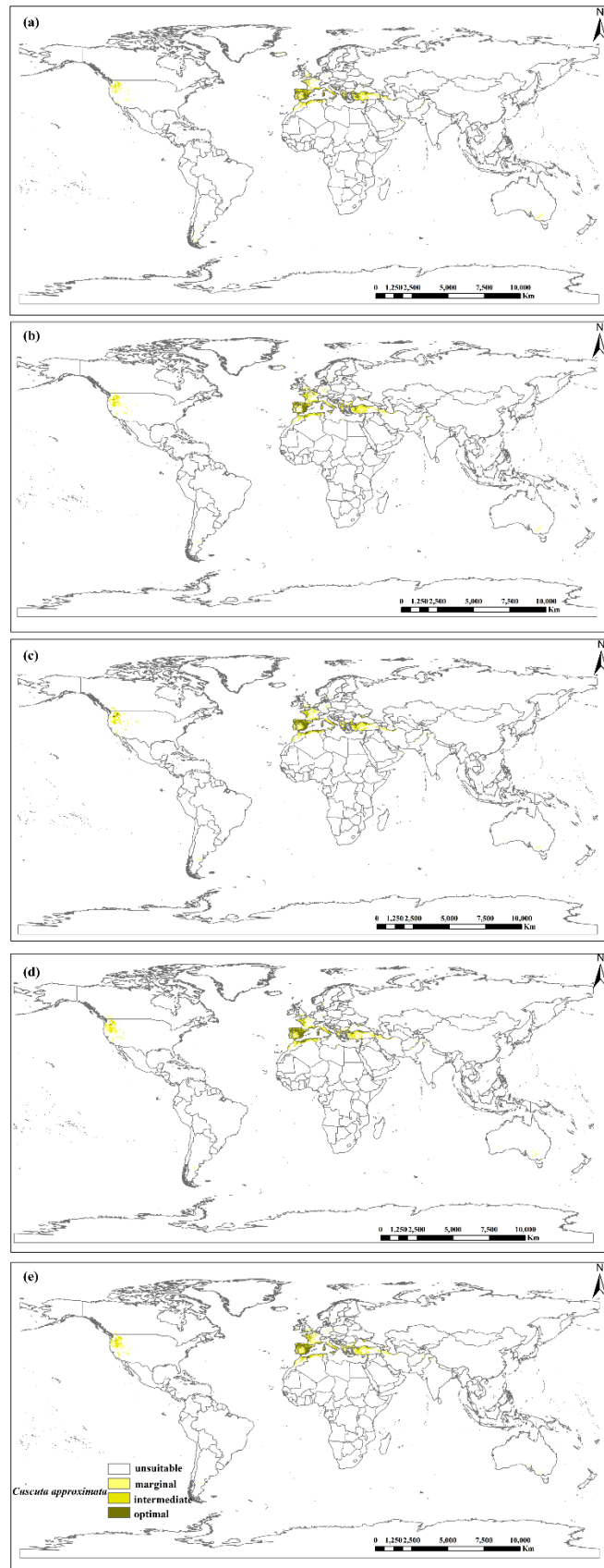


Figure S6. Projected potential distribution maps of *Cuscuta approximata* under the current climate and potential future climates in 2070. (a) current period; (b-e) RCP 2.6~8.5 in 2070.

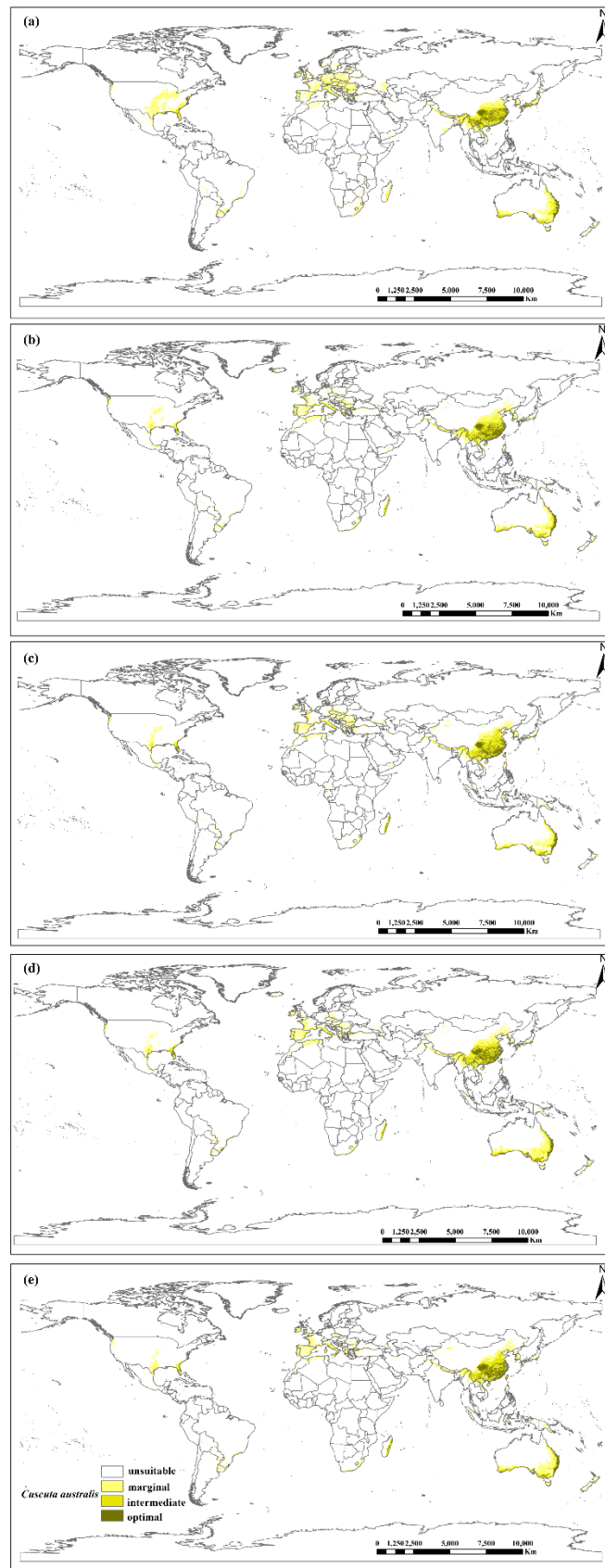


Figure S7. Projected potential distribution maps of *Cuscuta australis* under the current climate and potential future climates in 2070. (a) current period; (b-e) RCP 2.6~8.5 in 2070.

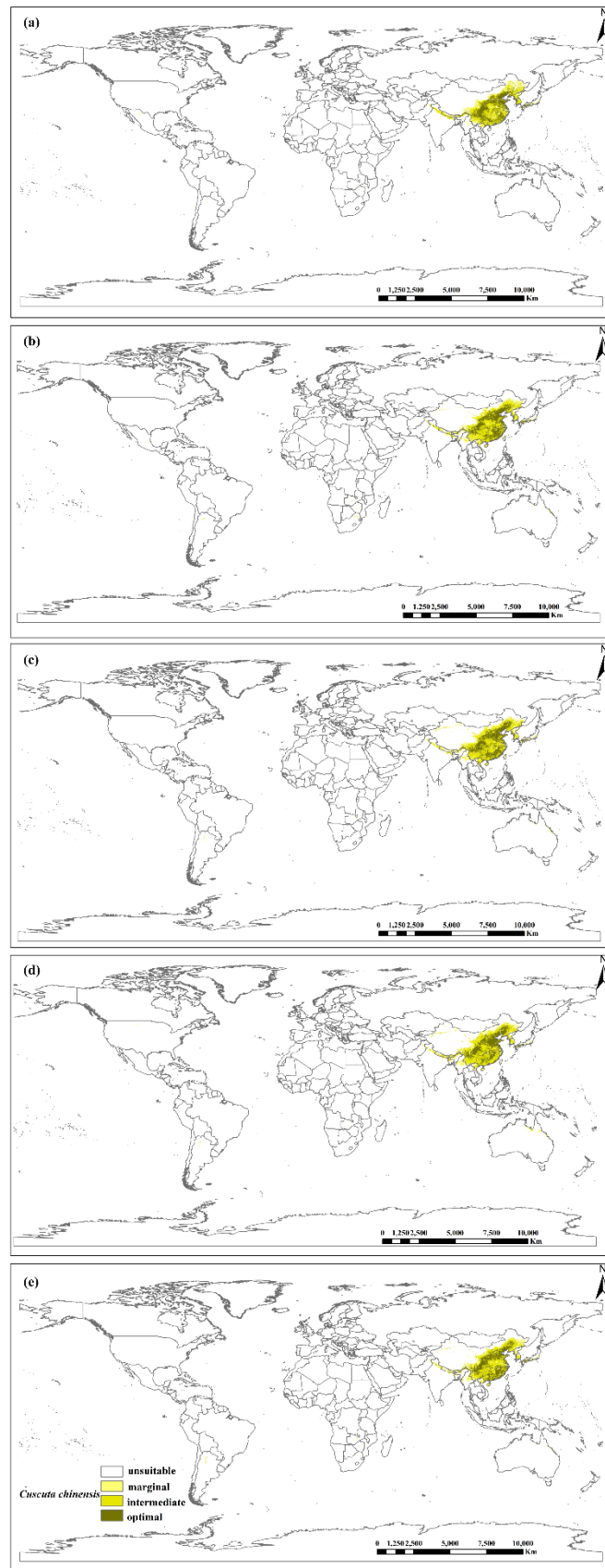


Figure S8. Projected potential distribution maps of *Cuscuta chinensis* under the current climate and potential future climates in 2070. (a) current period; (b-e) RCP 2.6~8.5 in 2070.

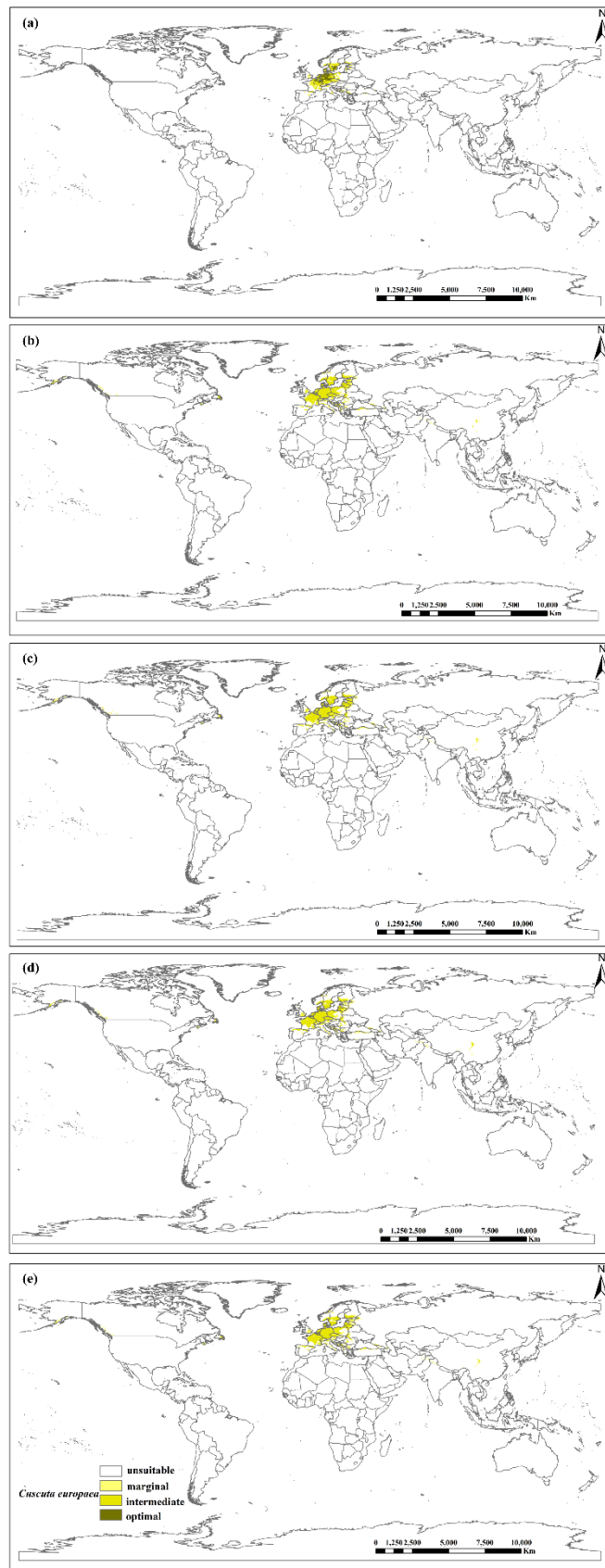


Figure S9. Projected potential distribution maps of *Cuscuta europaea* under the current climate and potential future climates in 2070. (a) current period; (b-e) RCP 2.6~8.5 in 2070.

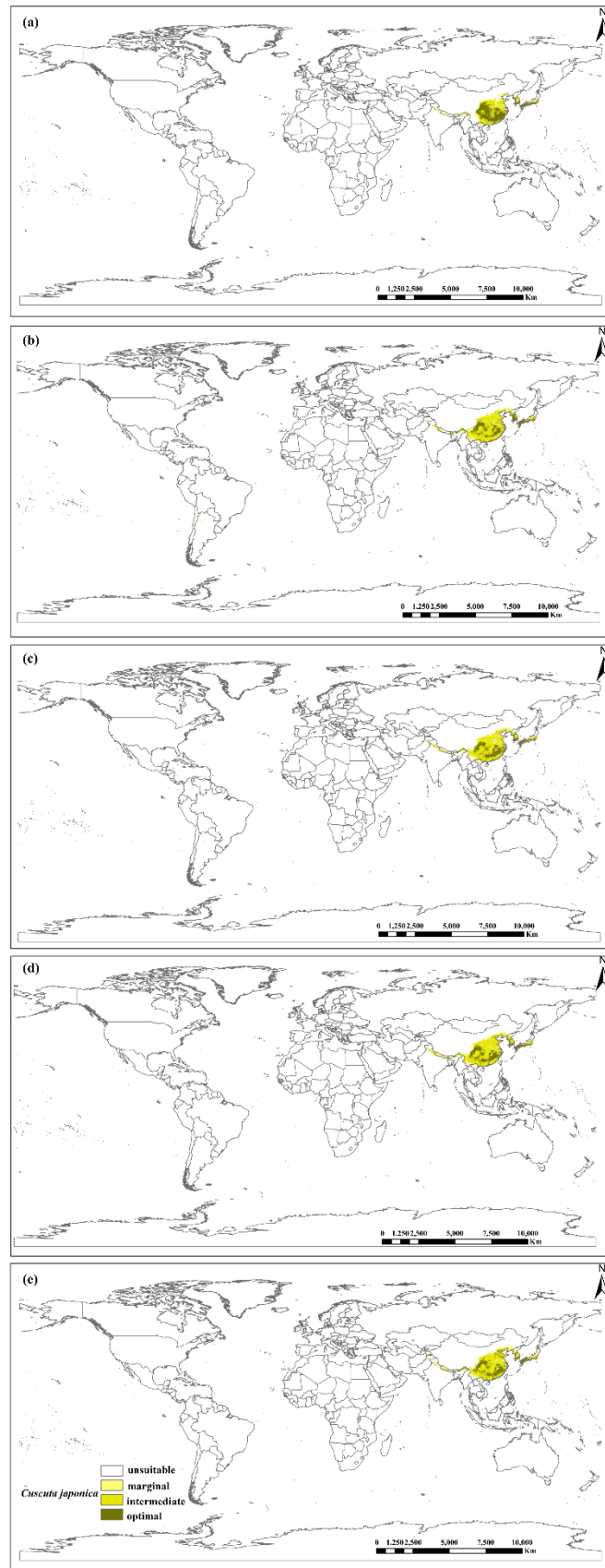


Figure S10. Projected potential distribution maps of *Cuscuta japonica* under the current climate and potential future climates in 2070. (a) current period; (b-e) RCP 2.6~8.5 in 2070.

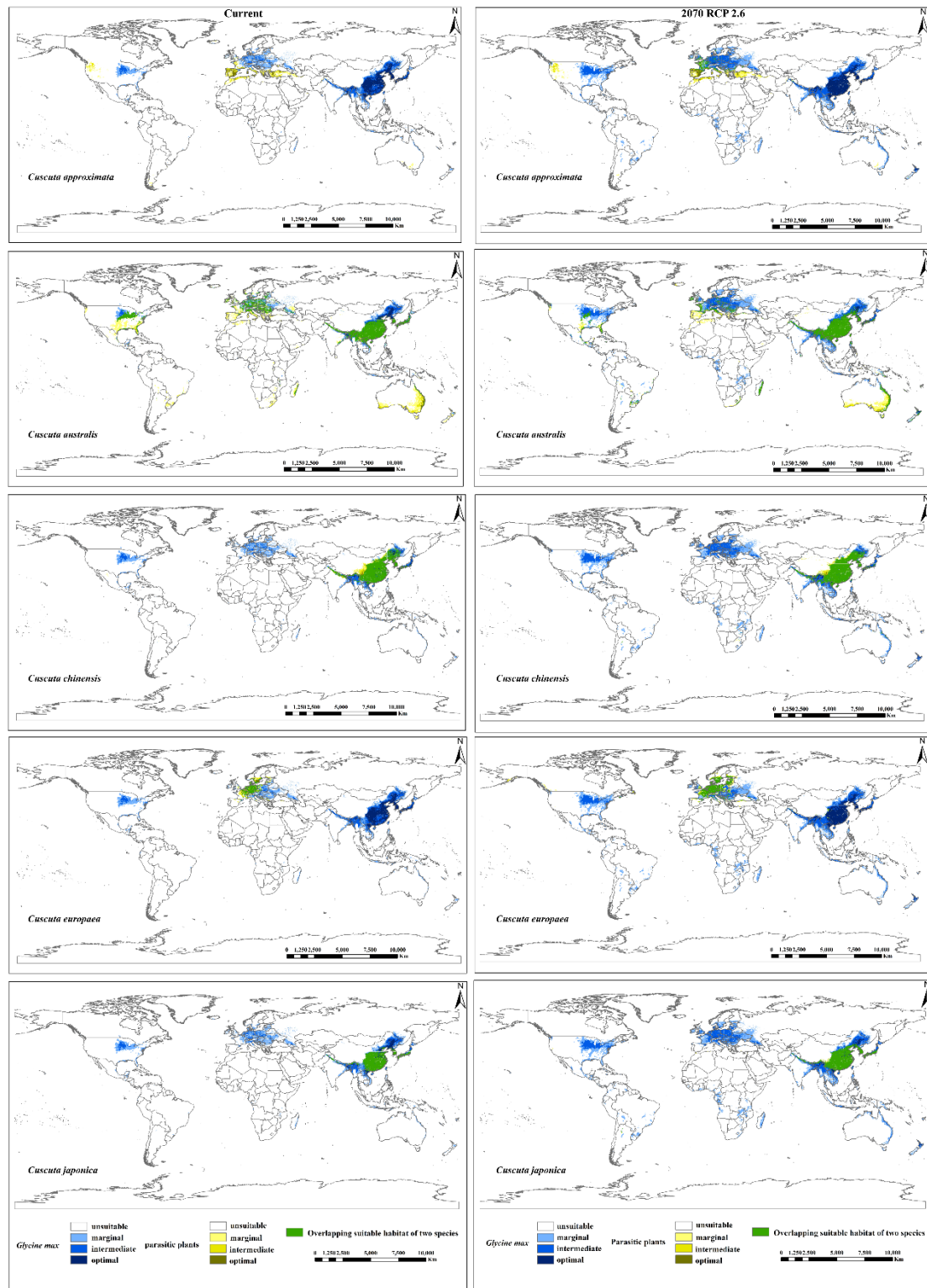


Figure S11. Maps showing the overlap of suitable habitat between *G. max* and five *Cuscuta* species in the current climate (panels on the left side) and potential future climatic scenario RCP 2.6 in 2070 (panels on the right side).

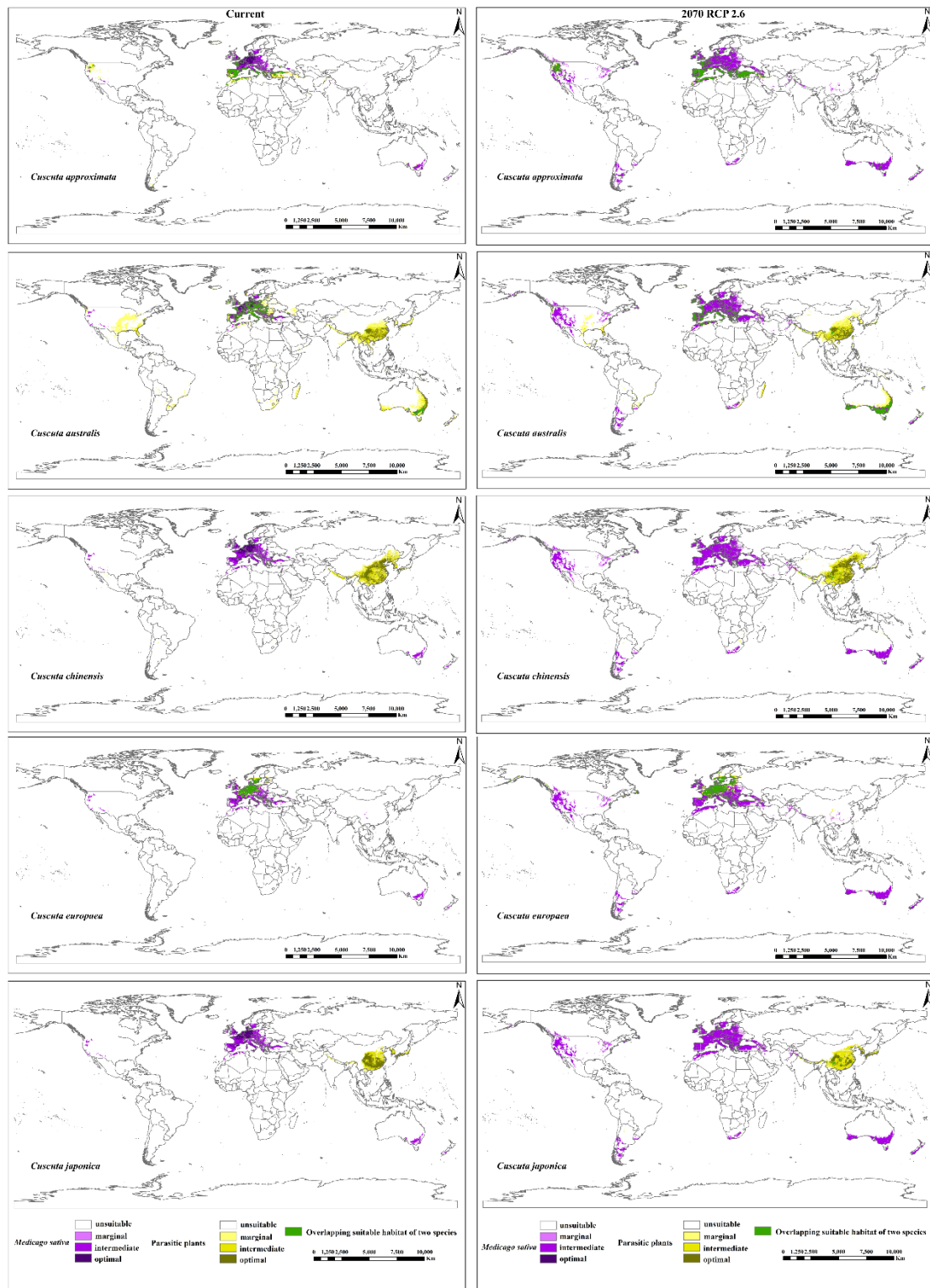


Figure S12. Maps showing the overlap of suitable habitat between *M. sativa* and five *Cuscuta* species in the current climate (panels on the left side) and potential future climatic scenario RCP 2.6 in 2070 (panels on the right side).

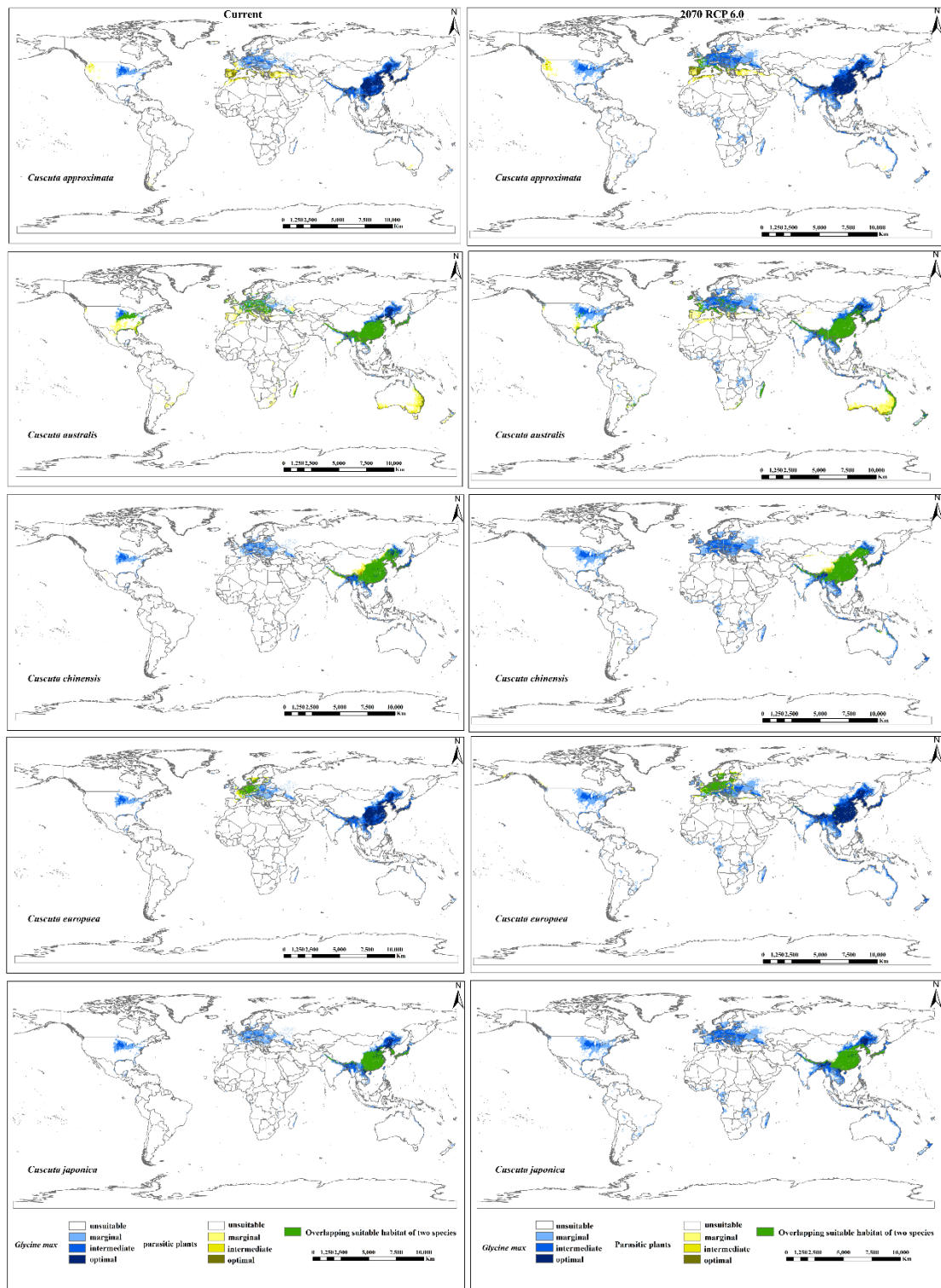


Figure S13. Maps showing the overlap of suitable habitat between *G. max* and five *Cuscuta* species in the current climate (panels on the left side) and potential future climatic scenario RCP 6.0 in 2070 (panels on the right side).

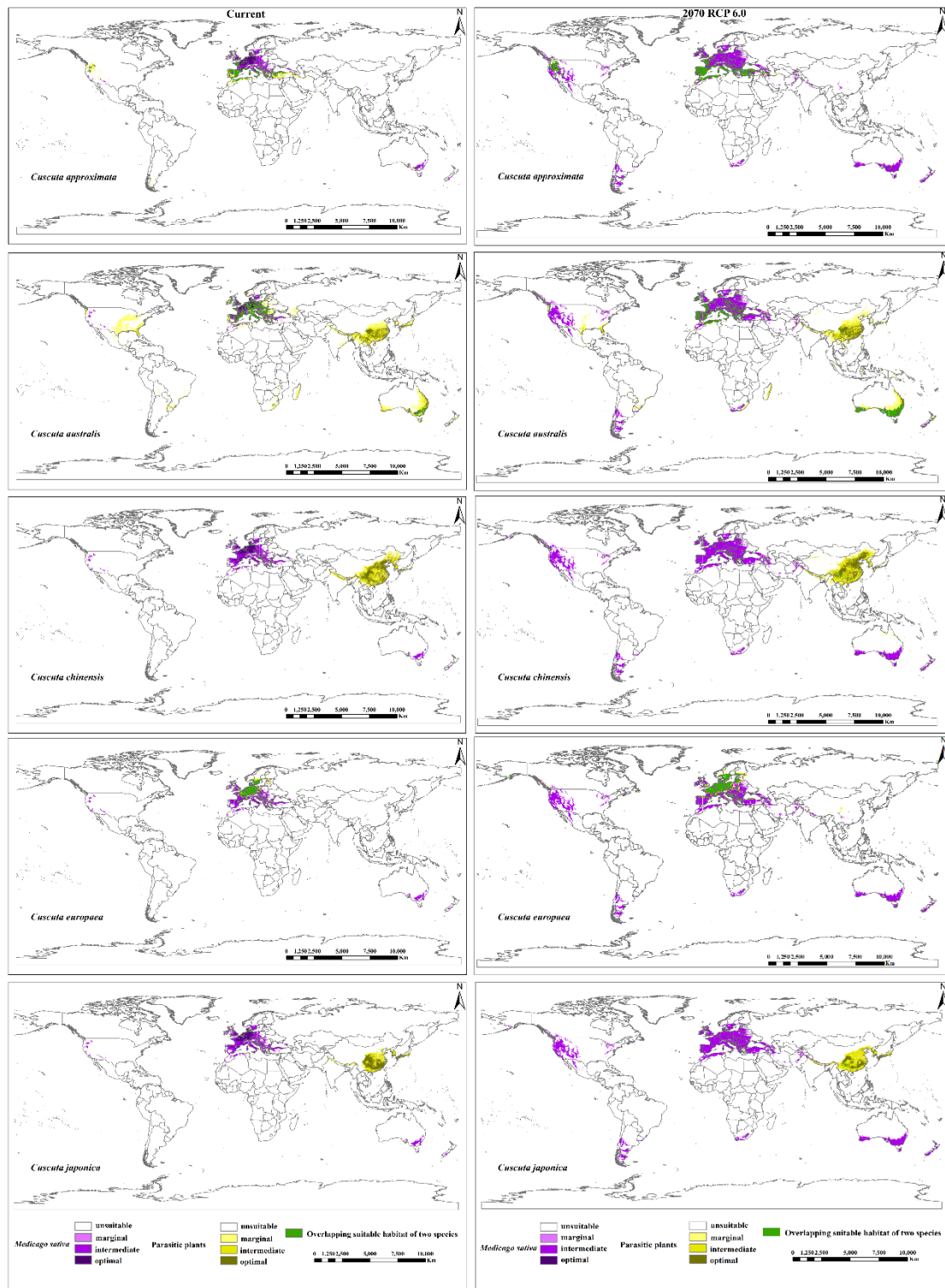


Figure S14. Maps showing the overlap of suitable habitat between *M. sativa* and five *Cuscuta* species in the current climate (panels on the left side) and potential future climatic scenario RCP 6.0 in 2070 (panels on the right side).

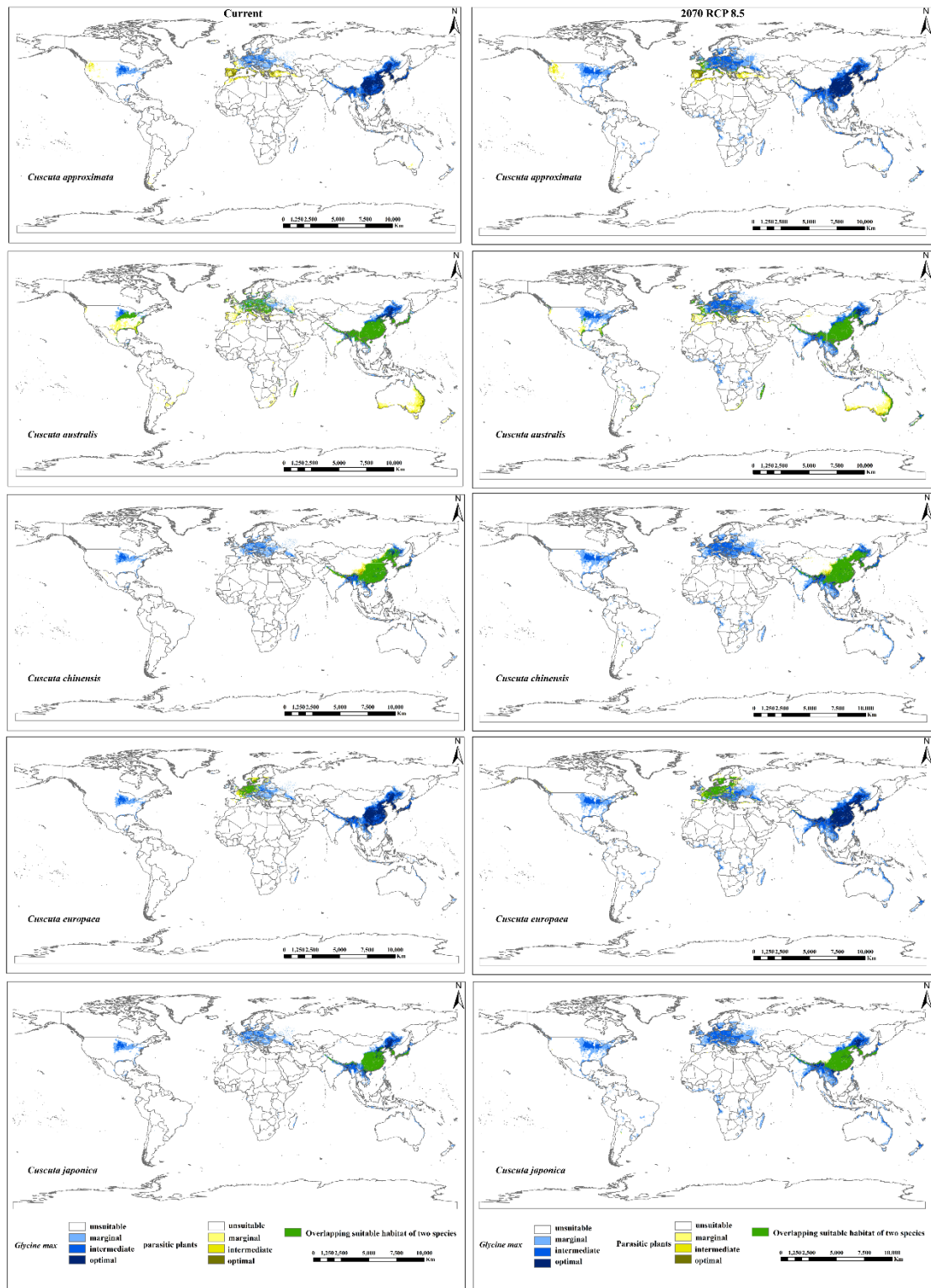


Figure S15. Maps showing the overlap of suitable habitat between *G. max* and five *Cuscuta* species in the current climate (panels on the left side) and potential future climatic scenario RCP 8.5 in 2070 (panels on the right side).

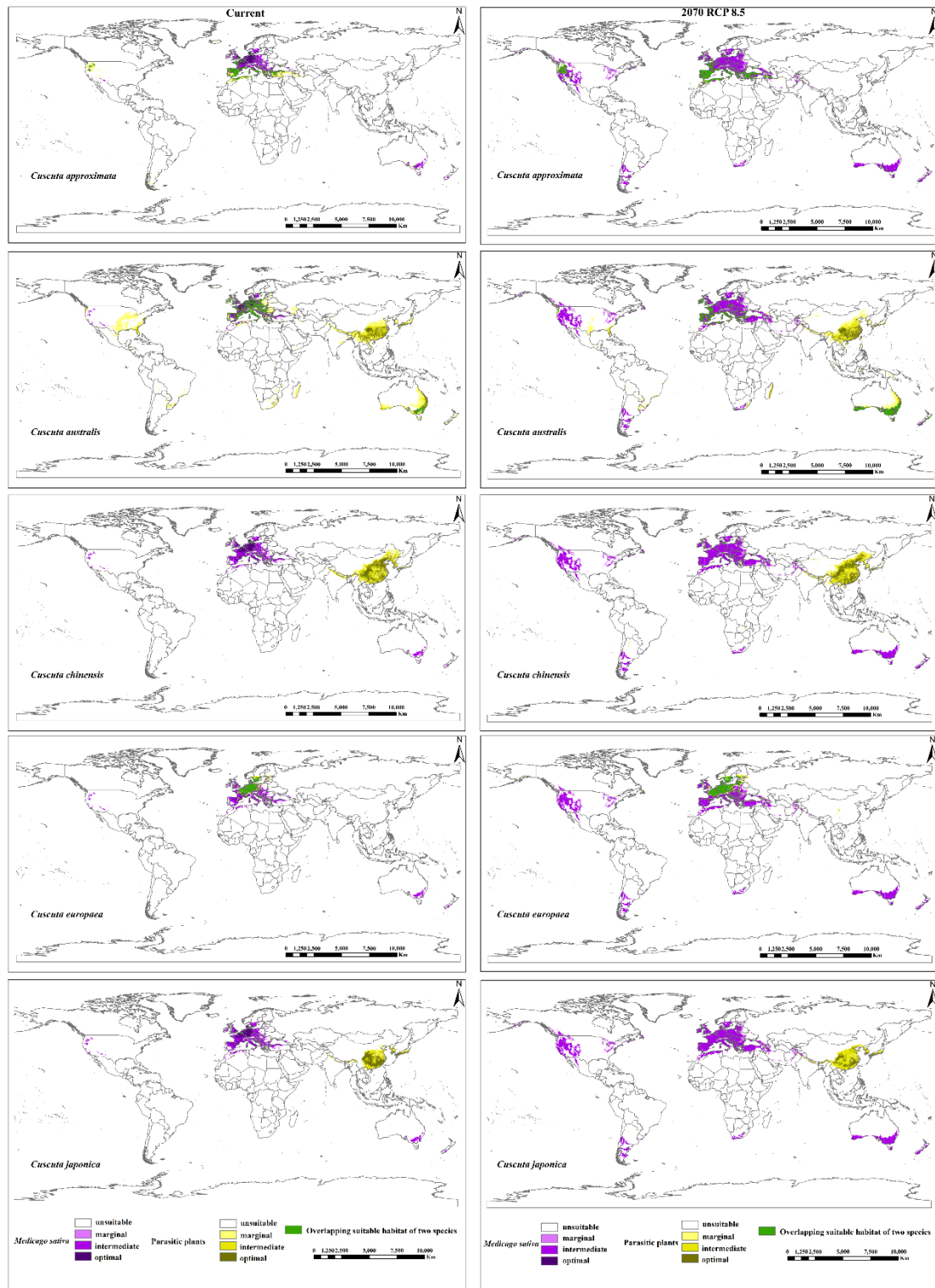


Figure S16. Maps showing the overlap of suitable habitat between *M. sativa* and five *Cuscuta* species in the current climate (panels on the left side) and potential future climatic scenario RCP 8.5 in 2070 (panels on the right side).