

# Inundation Dynamics

SWAMPS  
2000-2018

## Static distributions

Boreal Peatlands

NCSCD

Boreal wetlands

CAWASAR

Temperate wetlands

GLWD

Pan-tropical wetlands

CIFOR

Inland open water

GSW

Coastal mask

MOD44W

Irrigated Rice

MICRA2000

Maximum Extent

$$fW_{max}^{Dyn}(i)$$

Static Distribution

$$fW_{max}^{Sta}(i)$$

$$fW_{max}^{Dyn} > fW_{max}^{Sta}$$

yes

no

Inundation

$$fW_{max}^{Cor}(i) = fW_{max}^{Dyn}(i)$$

Inundation

$$fW_{max}^{Cor}(i) = fW_{max}^{Sta}(i)$$

Correcting factor  
 $CF(i)$

Dynamic distribution  
 $fW^{Dyn}(i, t)$

*Bias-correction*

Corrected Dynamic Inundation

$$fW_{max}^{Cor}(i) = fW_{max}^{Dyn}(i)$$

*Removal of non-wetlands*

Final output  
 $fW^{out}(i, t)$

