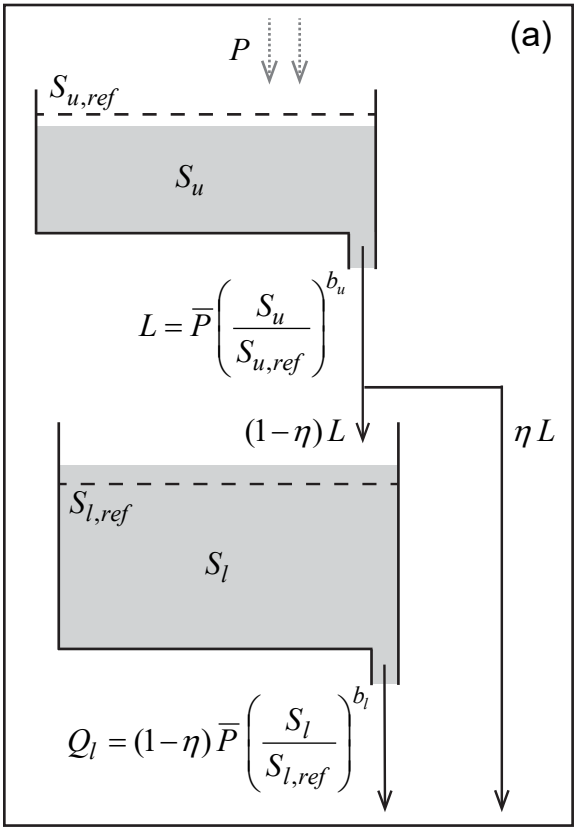
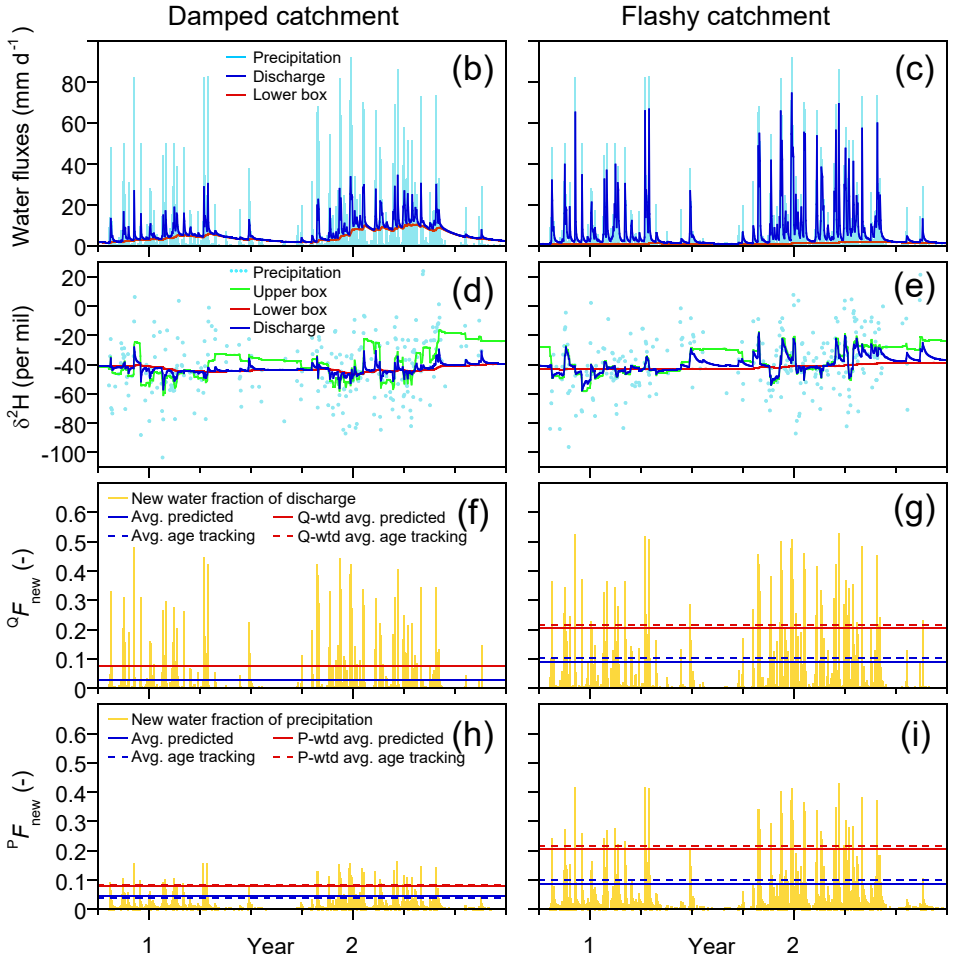

(a)
P
$S_{u,ref}$
S_u
$L = \overline{P}\left(\frac{S_u}{S_{u,ref}}\right)^{b_u}$
$(1-\eta)L$
ηL
$S_{l,ref}$
S_l
$Q_l = (1-\eta)\overline{P}\left(\frac{S_l}{S_{l,ref}}\right)^{b_l}$


Damped catchment
Flashy catchment
Water fluxes (mm d^{-1})
Precipitation
Discharge
Lower box
(b)
(c)
δ^2H (per mil)
Precipitation
Upper box
Lower box
Discharge
(d)
(e)
New water fraction of discharge
Avg. predicted
Avg. age tracking
Q-wtd avg. predicted
Q-wtd avg. age tracking
(f)
(g)
$^{Q}F_{new}$ (-)
New water fraction of precipitation
Avg. predicted
Avg. age tracking
P-wtd avg. predicted
P-wtd avg. age tracking
(h)
(i)
$^{P}F_{new}$ (-)
Year
1
2