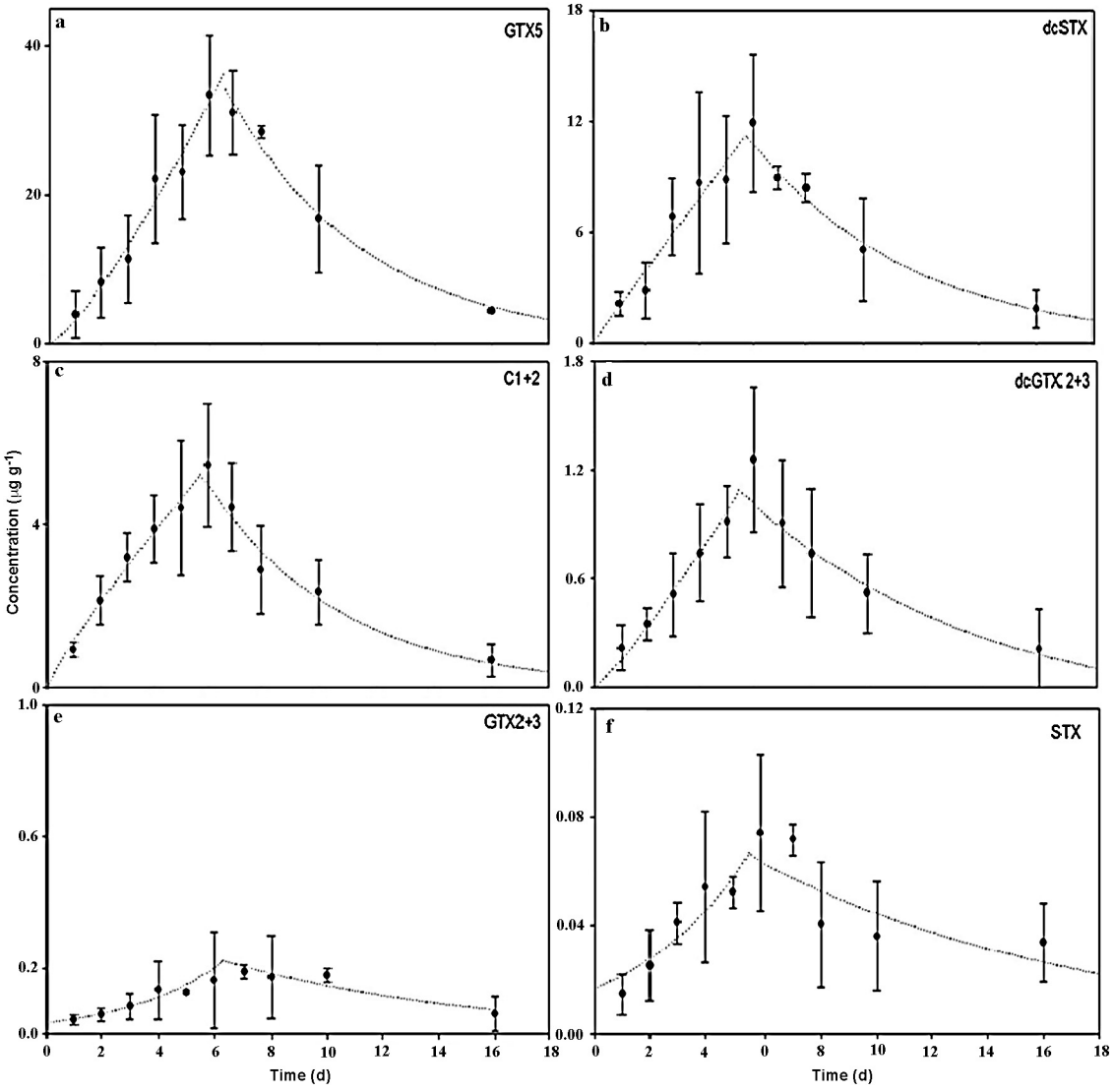

Fig. 2. Concentration ($\mu g\,g^{-1}$) of (a) GTX5, (b) dcSTX, (c) C1+2, (d) dcGTX2+3, (e) GTX2+3 and (f) STX in octopus digestive gland throughout the experimental period. Dots and error bars represent experimental data (mean based on three replicate samples). The dashed line represents the outputs of the best fit model.

Table 3
Net accumulation efficiency (α, %), initial concentration in digestive gland at beginning of depuration (q_{DG}). elimination rate ($k_{el\,DG}$, d^{-1}) (standard deviation) and coefficient of determination R^2 for each PST determined in octopus digestive gland during uptake and depuration.

Toxin	Uptake			Depuration		
	α	$k_{el\,DG}$ (d^{-1})	R^2	q_{DG} ($\mu g\,g^{-1}$)	$k_{el\,DG}$ (d^{-1})	R^2
dcGTX2+3	23%	0.311 (0.018)*	0.991	1.1 (0.02)*	0.131 (0.008)*	0.995
C1+2	23%	0.243 (0.040)*	0.924	5.6 (0.62)*	0.229 (0.052)*	0.958
dcSTX	36%	0.269 (0.054)*	0.895	11.4 (0.83)*	0.193 (0.029)*	0.9788
GTX2+3	–	0.292 (0.042)*	0.941	0.2 (0.03)*	0.113 (0.045)	0.846
GTX5	42%	0.336 (0.048)*	0.948	40.6 (3.29)*	0.220 (0.035)*	0.979
STX	18%	0.244 (0.043)*	0.913	0.1 (0.01)	0.099 (0.072)	0.945

* Values within the confidence limit ($P < 0.05$).

The toxin transfer coefficient from DG to the kidney (K_T) was calculated using the obtained $k_{el\,DG}$ and the above α values in Eq. (2). Considerable low values of transference for each toxin were obtained (Table 4). This finding together with the poor fit of the experimental data obtained for kidney, and due to the fact that PSTs were not detected in the remaining tissues, another approach to describe the accumulation/depuration dynamics of PST in octopus was adopted. Instead of a two compartment model initially hypothesized, we assumed a single-compartment model in which

Table 4
Toxin transfer rate from digestive gland to kidney (K_T, d^{-1}), elimination rate ($k_{el\,KD}$, d^{-1}) (standard deviation) and coefficient of determination R^2 for each PST determined in octopus kidney during uptake.

Toxin	Uptake		
	K_T	$k_{el\,KD}$ (d^{-1})	R^2
C1+2	0.0927	0.148 (0.199)	0.349
dcSTX	0.0207	0.147 (0.099)	0.424
GTX5	0.0018	0.165 (0.124)	0.388