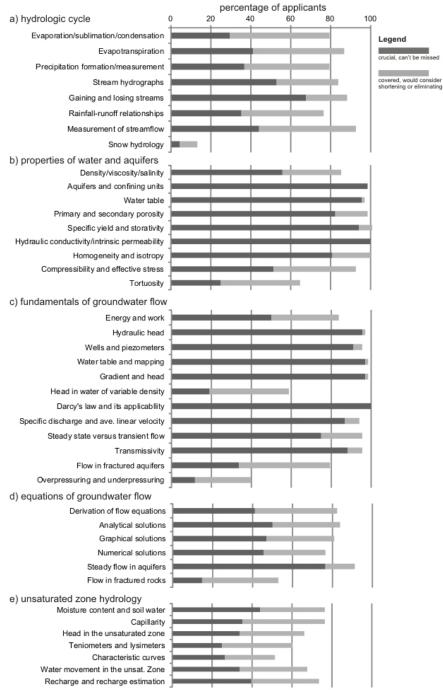
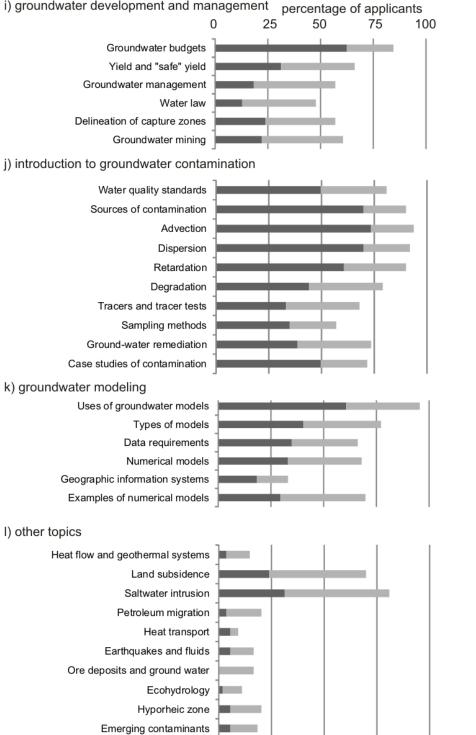
## Gleeson et al. Supplementary information Figure S1. The compilation of all the topics from the 2005 survey of hydrogeology instructors.



e) evaluation of groundwater resourc	es ) 25			oplicants 5 100	<b>.</b>	
Yield		50	,		, 	
Exploration for aquifers and waste sites						Legend
Drilling and sampling techniques	-		_			crucial, can't be mis
Installation of piezometers/wells	-					
Radial flow and assumptions			_		_	covered, would cons shortening or elimina
Theis solution						
Leaky aquifer solutions						
Unconfined aquifer solutions						
Effects of partial penetration					_	
Effects of bounded aquifers						
Design of aquifer tests						
Step drawdown and specific capacity						
Piezometer and permeameter tests			_		_	
					_	
Estimation of K from grain size _		1				
,	<b>1</b> 1	1				
Regional flow at different scales						
Regional flow nets						
Recharge and discharge areas						
Springs and seeps		_				
Groundwater-surface water interactions						
Ground-water age	,	- I				
g) groundwater chemistry						
Review of basic chemistry	<b>}</b>				1	
Types of reactions	]	_				
Chemical equilibrium/law of mass action						
Kinetics	<b>—</b>					
Activities						
Common ion effect		I				
Graphical presentation of analyses Carbonate equilibrium	·	_	_			
Redox reactions						
lon exchange		_				
Isotope hydrology	<b>⊨</b>					
Geochemical evolution						
Mixing equations						
Field examples						
Diffusion						
Geochemical modeling					1	
h) groundwater geology	_					
Unconsolidated aquifers	]+					
Sedimentary and crystalline aquifers						
Fractured aquifers	<b>}</b>					
Karst hydrogeology		-				
Freshwater-saltwater relations	]	-				
Sedimentary basins and brines	) <b></b> ;					
	- '			-		

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## i) groundwater development and management

Legend

crucial, can't be missed

covered, would consider shortening or eliminating