Fractions of G1/G2/G3 Organics

Qian Zhang (UMCES @ CBPO)

Modeling Workgroup

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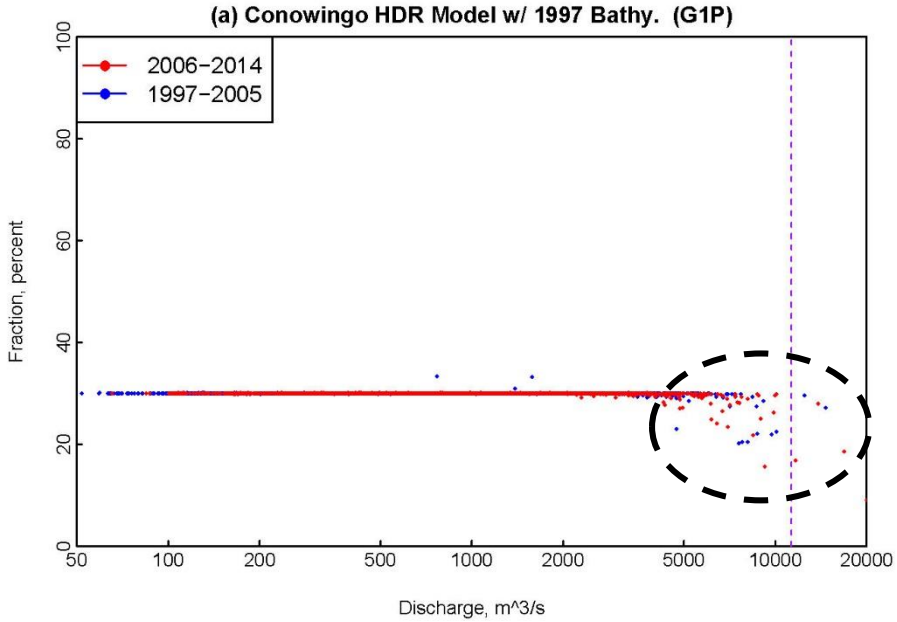
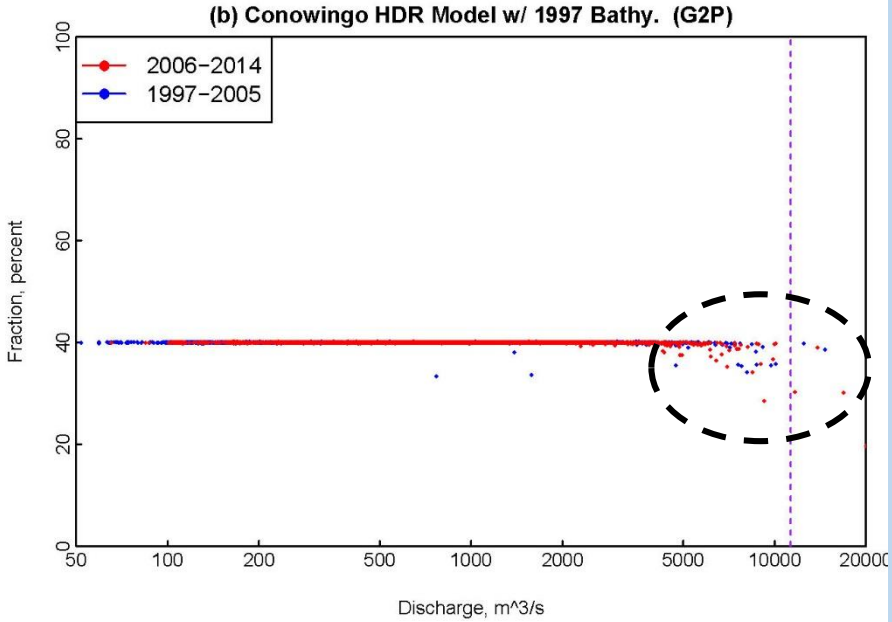
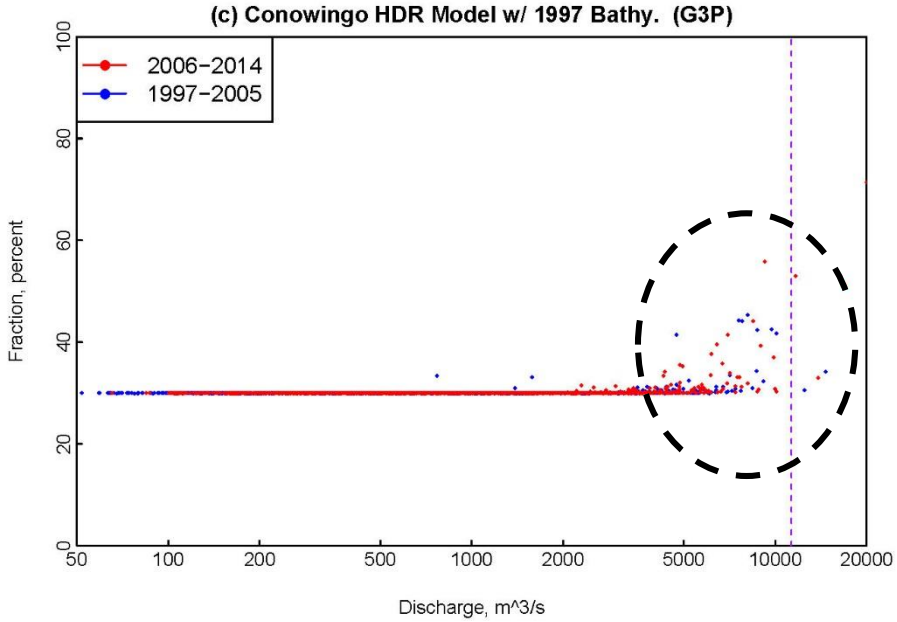
Conowingo Specifications

- During the 2/14/17 Modeling WG meeting agreement was reached
  - Conowingo is in equilibrium
  - WRTDS is appropriate for calibration use
  - Constant delivery factor over nutrient reduction scenarios
  - HDR model could be used to describe G1/G2/G3 organics
- Final agreement delayed until G1/G2/G3 equations could be developed.

HDR Model: G1P/G2P/G3P (1997 Bathy.)

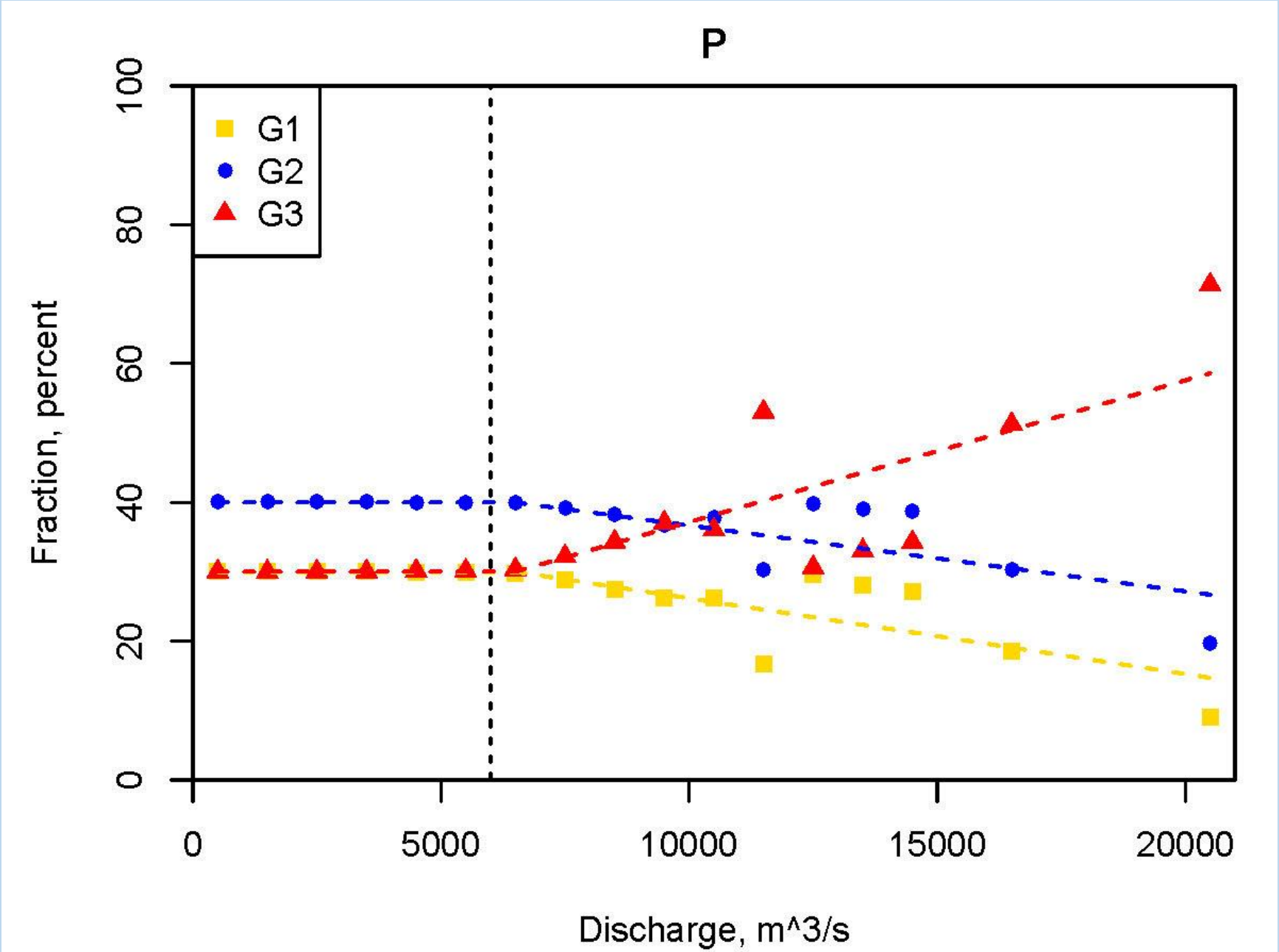




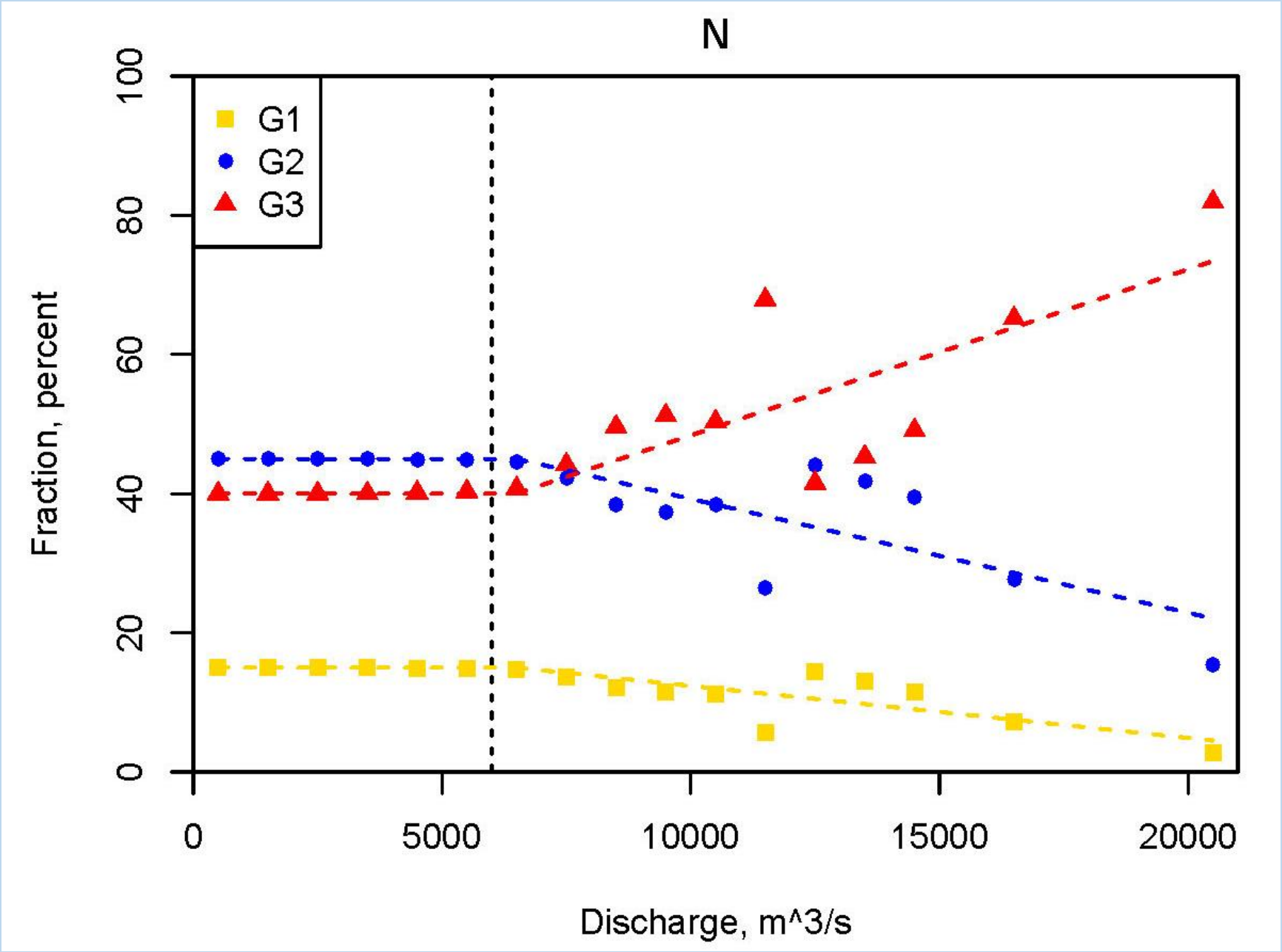


G1/G2 fractions decrease at high flows
G3 fraction increases at high flows

G1P/G2P/G3P


P
G1
G2
G3
Fraction, percent
0
20
40
60
80
100
0
5000
10000
15000
20000
Discharge, m^3/s

G1N/G2N/G3N


N
G1
G2
G3
Fraction, percent
0
20
40
60
80
100
0
5000
10000
15000
20000
Discharge, m^3/s

G1G2G3: Equations

P	For Q <= 6500 m^3/s	For Q > 6500 m^3/s
G1P, percent	30.0	-0.00109*(Q-6500) + 30
G2P, percent	40.0	-0.00095*(Q-6500) + 40
G3P, percent	30.0	+0.00204*(Q-6500) + 30

N	For Q <= 6500 m^3/s	For Q > 6500 m^3/s
G1N, percent	15.0	-0.00075*(Q-6500) + 15
G2N, percent	45.0	-0.00164*(Q-6500) + 45
G3N, percent	40.0	+0.00239*(Q-6500) + 40