



# STAC Membership Vacancies

September 11, 2018  
STAC Quarterly Meeting

# Status of Vacancies

- ▶ As of September 2018, we have to fill:
  - ▶ (5) At-large appointments
  - ▶ (2) Federal appointments
- ▶ Expertise we've lost:
  - ▶ Environmental and resource economics (Newburn)
  - ▶ Ecological and economic modeling for policy evaluation, esp. cost-benefit analysis (Newbold)
  - ▶ Estuarine near-shore habitats (Bilkovic)
  - ▶ Estuarine benthic and marine ecology (Luckenbach)
  - ▶ Estuarine hydrodynamics, sediment transport and water quality (Friedrichs)
  - ▶ Soil phosphorus/phosphorus fate and transport (Kleinman)

# June 2018 - Proposal for filling vacancies

**Distribute 3 of the vacancies across the top 3 prioritized needs.**

- ▶ Estuarine Living Resources
- ▶ Estuarine Physical/Biogeochemical
- ▶ Toxic contaminants

Executive Board will solicit new members from list of nominees discussed for these areas.

**Seek additional input to prioritize areas for remaining vacancies. STAC members will also be asked to submit nominations.**

- ▶ Environmental data analytics/statistics
- ▶ Decision/behavioral science
- ▶ Estuarine Living Resources
- ▶ Estuarine Physical/Biogeochemical

## Where We're At

- ▶ EB members conducted a formal ranking of the nominees from the June meeting via email, following some discussion on 8/6 call
- ▶ From these rankings, Brian contacted the highest ranked in each expertise to recruit them to STAC
- ▶ Second expertise survey was sent out to STAC 7/13, given 2 weeks to respond; had 12 respondents (35%)

## Living Resources

- ▶ Jeff Shields (VIMS)
- ▶ Kenny Rose (UMCES)
- ▶ Elizabeth North (UMCES)
- ▶ Greg Garman (VCU)

## Physical/Biogeochemical

- ▶ Larry Sanford (UMCES)
- ▶ Greg Noe (USGS)
- ▶ Courtney Harris (VIMS)
- ▶ Cindy Palinkas (UMCES)
- ▶ Jeff Cornwell (UMCES)
- ▶ Scott Ensign (Stroud Water Research Center)
- ▶ Claire Buchanan (ICPRB)

## Toxics

- ▶ Lee Blaney (UMBC)
- ▶ Andrew Heyes (UMCES)
- ▶ Vicki Blazer (USGS)

## Prioritize expertise needs for remaining vacancies

Priority Areas:

Environmental Data analytics/statistics

Decision Science

Social/Behavioral Science

Estuarine- Living Resources

Estuarine- Physical/Biogeochemical

	1	2	3	4	5	TOTAL
Environmental data analytics/Statistics	50.00% 6	8.33% 1	25.00% 3	0.00% 0	16.67% 2	12
Decision science	16.67% 2	25.00% 3	16.67% 2	33.33% 4	8.33% 1	12
Social/Behavioral science	8.33% 1	33.33% 4	25.00% 3	25.00% 3	8.33% 1	12
Estuarine - Living Resources	25.00% 3	16.67% 2	8.33% 1	33.33% 4	16.67% 2	12
Estuarine - Physical/Biogeochemical	0.00% 0	16.67% 2	25.00% 3	8.33% 1	50.00% 6	12

## (1) Environmental data analytics/statistics

The application of statistical expertise in the analysis of ecosystem/environmental applications, e.g., data analysis, model development and performance assessment, experimental/monitoring design.

### Nominations (Were also previously nominated)

Andy Royle, USGS (PAX) - Bayesian & frequentist expertise; very experienced in real-world, environmental applications for statistical rigor

Mike Runge, USGS (PAX) - similar background & some of same expertise as Andy; less accessible than Andy

Dong Liang, UMCES CBL - spatial environmental statistics, survey design

Richard Alexander, USGS - watershed integrated modeling and prediction, input to Phase 7 development

(x3) Eric Smith, VT - statistician with extensive experience in water/ecosystem policy; would be able to critically evaluate and assess statistical models, monitoring designs/strategies, risk/uncertainty, etc.

### New Nominations

Andrew Scheld, W&M - economic modeling

Pat Sullivan, Cornell - statistics, mostly fisheries

## (2) Decision Science

A systematic, quantitative and interactive approach to addressing and evaluating important choices within a context of incomplete information. Decision science is interdisciplinary drawing on the fields of psychology, economics, and management science.

### Nominations (Were also previously nominated)

(x2) Mike Runge, USGS - environmental policy decision support; Expert in decision science, value of information, and adaptive management. Holds a PhD in wildlife science so he also brings natural science expertise

### New Nominations

Angela Fuller, Cornell - decision-making related to fish and wildlife management

### (3) Social Behavioral Science

#### New Nominations

Sarah Stafford, W&M - economics, law, public policy

Elizabeth Andrews, W&M - law, public policy

Michelle Covi, ODU - sociology

Michael Paolisso, UMD

Kent Messer, University of Delaware - Behavioral economist. Co-director for the CBEAR which studies people's behavioral responses to agri-environmental programs and incentives

Marc Stern, VT - Human dimensions of natural resource policy and management, environmental communications, natural resource management effectiveness, attitudes vs. actions, public responses to natural resource management, evaluation of environmental education and other outreach programs

## (4) Estuarine- Living Resources

### Nominations

Kenny Rose, UMCES-HPL - fish modeling, food webs, hypoxia impacts on fish, etc.

*\* Has been contacted about joining STAC*

## (5) Estuarine- Physical/Biochemical

### Nominations (Was previously nominated)

Greg Noe, USGS - effects of sea-level rise and flooding on tidal wetland morphology and ecology



# Previous Federal Appointment Recommendations

- Greg Noe (USGS)
- Andy Royle (USGS)
- Michael Runge (USGS)
- Rich Alexander (USGS)
- Vicki Blazer (USGS)
- Barry Frantz (USDA-NRCS) - ag practices; traditional and alternative BMPs; animal and row crop agriculture, specialty cropping
- Anthony Buda (USDA-ARS) - Recommended by Peter Kleinman, Hydrologist for the Pasture Systems and Watershed Management Research Unit
- Dianna Hogan (USGS) - Recommended by JK Bohlke, urban/suburban development and BMPs
- Theresa Goedeke (NOAA NCCOS) - social science; sociologist-human dimensions
- Anne Timm (USDA Forest Service) - freshwater fisheries scientist
- G. Scott Boomer (USFWS) - objective environmental data analyses specifically to inform resource management

# Environmental data analysis

## Specific needed expertise

- Environmental Statistician
- Data analytics/environmental statistics
- Environmental statistics and/or data mining
- Statistical analysis - including BOTH Bayesian and frequentist expertise
- Spatial statistics
- Analyzing current observed data sets. Identify gaps in data. Needed investments. Work with modeling group.

## Nominees

- **(3)** Eric Smith (VT)
- **(2)** Dong Liang (UMCES-CBL)
- **(2)** Andy Royle (USGS)
- **(2)** Michael Runge (USGS)
- Rich Alexander (USGS)

# Estuarine – Living Resources

## Specific needed expertise

- Estuarine ecologists with broad interests
- Estuarine benthic and marine ecology
- Fish populations and food web interactions / dynamics
- Saltwater fisheries
- Impacts of pollutants on living marine resources
- Wetlands ecology & importance of structured habitat (including oyster reef) to associated living resources

## Nominees

- **(3)** Jeff Shields (VIMS)
- Roger Mann (VIMS)
- Kenny Rose (UMCES-HPL)

# Estuarine – Physical/Biogeochemical

## Specific needed expertise

- Nutrient cycling
- Estuarine hydrodynamics, sediment transport and water quality
- Interactions between fluid flow and estuarine ecology
- River-estuarine linkages and processes
- Estuarine hydrodynamic /biogeochemical/ecosystem modeling
- Hydrodynamic modeling

## Nominees

- **(3)** Larry Sanford (UMCES-HPL)
- **(2)** Greg Noe (USGS)
- Courtney Harris (VIMS)
- Cindy Palinkas (UMCES-HPL)
- Scott Ensign (Stroud Water Research Center)
- Claire Buchanan (ICPRB)

# Toxic contaminants

## Specific needed expertise

- Contaminants of emerging concern (CECs)
- Emerging contaminants
- Fate and transport
- Expertise in toxins of emerging concern with a background in human and/or environmental health
- Emerging contaminants, hormones, fish health

## Nominees

- **(2)** Lee Blaney (UMBC)
- **(2)** Andrew Heyes (UMCES-CBL)
- Vicki Blazer (USGS)
- Upal Ghosh (UMBC)