

CURRICULUM VITAE: SHAMILLA PILLAY

PERSONAL DETAILS

Employment : CSIR
Profession : Researcher (Ecologist)
Specialization : Ecology, Water Quality & Toxicity Testing
Position in Firm : Project Leader/Ecologist
Year appointed : 1981 (32 years)
Nationality : South African
Year of Birth : 1958
Language Proficiency : English (Good-speaking & writing) Afrikaans (Basic- speaking & writing)

KEY QUALIFICATIONS

Capacity

- Vegetation (terrestrial, wetland and estuarine) community structure and diversity
- Impacts of air quality on vegetation
- Water quality (freshwater, marine and estuarine) and pollution monitoring
- Algal assays for biomonitoring (nutrients and toxicity)
- Aquaculture systems
- Wetlands for wastewater treatment and catchment management
- Terrestrial/Marine/Estuarine Ecology (Resource status, pollution impacts, sustainability)
- Marine toxicity testing

Courses

Environmental Impact Assessments (CSIR, 1993); Project Management (Groman, 1988); Negotiating Skills (Alan Wittaker, 1991); Stella I Think Modelling (CSIR, 1994); Environmental Law (Rhodes University, 1996); Changing Concepts in Ecology (UCT, 1999); Investment in Excellence (Pacific Institute, 2001).

EDUCATION AND PROFESSIONAL STATUS

Qualification	Institution	Year
B Sc. (Botany and Zoology)	University of Durban-Westville	1980
B Sc. (Hons (Botany))	University of Durban-Westville	1982

Memberships:

Association for the Taxonomic Study of the Flora of Tropical Africa (AETFAT - French acronym)
APCEN network
The Botanical Society of South Africa
SANCOR
CERM
AQUATOX FORUM

EMPLOYMENT AND EXPERIENCE RECORD

Period	Organisation details and responsibilities/roles
1980-1981	Protea Secondary School – Teacher (Biology & Physical Science)
1981-present	CSIR. Researcher and Project Leader

Project Experience:

Year	Description, client, role
Recent and Ongoing	Marine toxicity testing: Testing of effluents discharged to sea as required by permitting authorities. Durban & Richards Bay Municipalities, DWAF and approx 30 small and large companies.
“	Umgeni Bank Stabilization EIA – specialist study – fauna and flora and river impacts
“	Habitat recreation conceptual plan due to potential habitat loss- Port of Durban
“	Management of the Emergency Water Quality Monitoring for Port of Durban. Several investigations completed to date.
“	Investigation of methods to mitigate impacts on Mangroves in the Richards Bay Heritage Site, Port of Richards Bay
“	Impacts of atmospheric fluoride on vegetation in the Richards Bay area.
“	Impacts of fluoride from aluminium smelters and sulphuric/phosphoric acid plants on freshwater and marine environments.
“	Air quality impacts on vegetation for proposed power station (Uruguay))
“	Air quality impacts on vegetation for proposed gas fired power station (Nampower)
“	Air quality impacts on vegetation from alternative fuel powered cement kilns (NPC)
“	Impacts of accidental spills into aquatic environments e.g. accidental fire at chemical storage facility in the port of Durban
“	Specialist report (strategic environmental assessment) on the biophysical environment for the 50 year framework development plan for the Port of Richards Bay
“	Estuarine flow requirements – Resource directed measures – Botanical, water and sediment quality specialist assessments for KZN estuaries
“	Impact assessments on Fauna and Flora resulting from various environmental contaminants (air and waterborne) from large industries e.g. Billiton, Foskor
“	Vegetation recovery studies following accidental spill of sulphur dioxide (Foskor)
“	Specialist study on impacts of proposed sewage disposal into river systems
“	Assessment of Water Quality and Ecology for National Ports Authority (Durban).
“	Developing an Importance Rating for the Estuaries of KZN based on Botanical and productivity value.
“	Evaluating the cause of Fish Kills in rivers, estuaries and ports as they occur.
“	Specialist Studies on the Biophysical Environment for EIAs, Development plans and SEAs.
“	Toxicity testing of marine sediments for the Ports of Durban, Richards Bay and East London (Portnet) for disposal of dredge – compliance with London Dumping Convention
2001	Determination of fluoride toxicity to several biological test organisms for determination of discharge permit limits. Hillside Aluminium.
2000	Impacts on flora from an aluminium smelter for the Alusaf water management plan. Hillside Aluminium Assessment of the state of the Terrestrial and Aquatic Environments for the Empangeni SEA. Empangeni Municipality
1999	Status of Natural Environment and Relevant Recommendation for the Umtamvuna Local Development Plan. Umtamvuna TLC Terrestrial Environmental Assessment of Specific Development sites for the Lumbombo SDI. Governments of SA and Swaziland
1998	Specialist Report on the Terrestrial Environment for the Durban South Industrial Basin. Strategic Environmental Assessment (SEA). Durban Municipality
1997	Assessment of Terrestrial environment and local streams with relevant recommendations for the Cato Manor Development Plan. Cato Manor Development Association
1996	Specialist State of Environment (SOE) Report on the Terrestrial Environment for the Greater Durban Metropolitan Area. Durban Municipality Specialist study of contamination of Fauna and Flora around a chemical plant for EIA. Sanachem Terrestrial study and Integrated EIA report for proposed food acids plant. NCP
1994-95	Development of Expertise of Best Management Practices for stormwater control using instream detention ponds and wetlands in a new housing development.

	Review/ manual for Town and Regional Planning on Wetland technologies.
1986-93	Aquaculture Research including, wastewater for fish and ornamental plant production, red tilapia breeding programmes, invertebrate cultures for larval fish and prawn rearing.
1983-85	Developed algal assays for toxicity testing and determining nutrient availability in polluted waters.
1981-82	Chemical analyses of various wastewaters and natural systems. Participated in the large Rivers and Dams Programme for Department of Water Affairs.

PUBLICATIONS

Author and co-author of over 400 technical reports for external contract clients. Presented papers at local and international conferences. A full publications list of available on request.

CERTIFICATION

I, the undersigned, certify that to the best of my knowledge and belief, these data correctly describe my qualifications and experience.



[Signature of staff member and authorized representative of the firm]

Date: 14/04/2013
Day/Month/Year

Shamilla Pillay